NUMBER THEORY TABLES

NUMBER THEORY

TABLES

Compiled by

Brother Alfred Brousseau

A publication of

The Fibonacci Association

1973

Printed in The United States of America.

FOREWORD

The present volume is part two of a project that began in the spring of 1970, the first part being entitled "Fibonacci and Related Number Theoretic Tables." As its title indicates, the tables included in this second part relate to number theory with the understanding that Fibonacci and linear recursion tables are excluded, having been covered in volume one.

The aim throughout has been to prepare tables that will make work in the field of number theory convenient. For this reason, certain tables that present no difficulty in making the calculations, such as, a listing of divisors of composite numbers, the Mobius function, etc., are included. By and large the individual tables do not go very far since otherwise the volume would have become very bulky. Many extensions of the data can be found by having recourse to the limited bibliography.

Particularly helpful in finding leads to tables was the work published by the National Research Council, "Guide to Tables in the Theory of Numbers," by D. H. Lehmer.

Once again I am very grateful to Marjorie Bicknell for her help in checking the tables for errors. Any report of discrepancies would be greatly appreciated.

Brother Alfred Brousseau

October 1973

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ACKNOWLEDGMENTS

1. TABLE OF PRIMES
Based on references (29) and (33).

2. TABLE OF COMPOSITES
Based on reference (33).

3. FACTORS OF COMPOSITE INTEGERS
Produced by Brother Alfred Brousseau.

4. TABLE OF GAUSSIAN PRIMES
Produced by Brother Alfred Brousseau.

5. NUMBER OF DIVISORS
Taken from Glaisher (13); summation by Brother Alfred Brousseau.

6. SUM OF DIVISORS
Taken from Glaisher (13).

7. TOTIENT AND SUM OF TOTIENTS
Calculations by Brother Alfred Brousseau combined with use of the work of Sylvester(41).

8. QUADRATIC RESIDUES
Calculated by Brother Alfred Brousseau. See also (21).

9. FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE
Derived by Brother Alfred Brousseau.

10. FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE
Derived by Brother Alfred Brousseau.

11. PRIMITIVE ROOTS
Taken from the tables of reference (17).

12. POWER RESIDUES AND INDICES OF PRIMES
Calculated by Brother Alfred Brousseau. Checked against (42).

13. CUBIC RESIDUES
Calculated by Brother Alfred Brousseau.

14. QUARTIC RESIDUES
Calculated by Brother Alfred Brousseau

15. CONVERSE OF FERMAT'S THEOREM
Produced by Brother Alfred Brousseau. See references (27), (28), (36).

16. WILSON QUOTIENTS
Taken from the table of reference (14).

17. MOEBIUS FUNCTION
Produced by Brother Alfred Brousseau.

18. POLYGONAL NUMBERS
Calculations by Brother Alfred Brousseau.

19. PYRAMIDAL NUMBERS
Calculations by Brother Alfred Brousseau.

20. TABLE OF PRIMITIVE PYTHAGOREAN TRIANGLES
Calculations by Francis L. Miksa. Published with his authorization.

21. PERFECT NUMBERS
Gathered from the literature. See reference (15).

22. MULTIPLY PERFECT NUMBERS
Selected examples from the literature. See references (7), (6),(11), (12).

23. AMICABLE NUMBERS
Selected examples from the work of Madachy and Lee. See reference (24).

24. BERNOULLI NUMBERS
Data taken from reference (1).

25. FACTORIZATIONS OF $2^n - 1$.
Gathered from the literature. See references (3), (4), (5), (23),(10), (25), (34), (39).

26. FACTORIZATIONS OF $2^n + 1$.
Collated from the literature. See references (3), (5), (10), (23), (25),(39).

27. FACTORS OF MERSENNE NUMBERS
Taken from the literature. See references (2), (4), (22), (34),(39).

28. FERMAT NUMBERS
Taken from the literature. See references (30), (38).

29. PRIME FACTORS OF CULLEN NUMBERS
Previously unpublished work of Edgar Karst.

30. DECIMAL REPRESENTATION OF 1/n IN VARIOUS BASES
Calculations by Brother Alfred Brousseau.

31. CONTINUED FRACTION EXPANSIONS OF QUADRATIC SURDS
Produced by Brother Alfred Brousseau.

32. FUNDAMENTAL SOLUTIONS OF $x^2 - Ay^2 = +1$.
Based on the work of M. Kraitchik. (22)

33. FUNDAMENTAL SOLUTIONS OF $x^2 - Ay^2 = -1$.
Based on the work of M. Kraitchik. (22)

34. PARTITIONS OF N INTO k OR FEWER PARTS
Calculations by Brother Alfred Brousseau. Checked against (16).

35. PARTITIONS BY MAGNITUDE OF MAXIMUM ELEMENT
Produced by Brother Alfred Brousseau.

36. PARTITIONS ARRANGED BY NUMBER OF ELEMENTS
Produced by Brother Alfred Brousseau.

37. FAREY FRACTIONS
Table formulated by Brother Alfred Brousseau.

38. EULER'S CONSTANT
Calculations by Donald E. Knuth (20).

39. LARGE PRIMES
Taken from the literature. See references (31), (32).

40. PRIMES IN ARITHMETIC PROGRESSION
Taken from the literature for the larger sequences (18), (19). Otherwise calculated by Brother Alfred Brousseau.

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TABLE OF PRIMES

n	p	n	p	n	p	n	p
1	2	51	233	101	547	151	877
2	3	52	239	102	557	152	881
3	5	53	241	103	563	153	883
4	7	54	251	104	569	154	887
5	11	55	257	105	571	155	907
6	13	56	263	106	577	156	911
7	17	57	269	107	587	157	919
8	19	58	271	108	593	158	929
9	23	59	277	109	599	159	937
10	29	60	281	110	601	160	941
11	31	61	283	111	607	161	947
12	37	62	293	112	613	162	953
13	41	63	307	113	617	163	967
14	43	64	311	114	619	164	971
15	47	65	313	115	631	165	977
16	53	66	317	116	641	166	983
17	59	67	331	117	643	167	991
18	61	68	337	118	647	168	997
19	67	69	347	119	653	169	1009
20	71	70	349	120	659	170	1013
21	73	71	353	121	661	171	1019
22	79	72	359	122	673	172	1021
23	83	73	367	123	677	173	1031
24	89	74	373	124	683	174	1033
25	97	75	379	125	691	175	1039
26	101	76	383	126	701	176	1049
27	103	77	389	127	709	177	1051
28	107	78	397	128	719	178	1061
29	109	79	401	129	727	179	1063
30	113	80	409	130	733	180	1069
31	127	81	419	131	739	181	1087
32	131	82	421	132	743	182	1091
33	137	83	431	133	751	183	1093
34	139	84	433	134	757	184	1097
35	149	85	439	135	761	185	1103
36	151	86	443	136	769	186	1109
37	157	87	449	137	773	187	1117
38	163	88	457	138	787	188	1123
39	167	89	461	139	797	189	1129
40	173	90	463	140	809	190	1151
41	179	91	467	141	811	191	1153
42	181	92	479	142	821	192	1163
43	191	93	487	143	823	193	1171
44	193	94	491	144	827	194	1181
45	197	95	499	145	829	195	1187
46	199	96	503	146	839	196	1193
47	211	97	509	147	853	197	1201
48	223	98	521	148	857	198	1213
49	227	99	523	149	859	199	1217
50	229	100	541	150	863	200	1223

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n	p	n	p	n	p	n	p
201	1229	251	1597	301	1993	351	2371
202	1231	252	1601	302	1997	352	2377
203	1237	253	1607	303	1999	353	2381
204	1249	254	1609	304	2003	354	2383
205	1259	255	1613	305	2011	355	2389
206	1277	256	1619	306	2017	356	2393
207	1279	257	1621	307	2027	357	2399
208	1283	258	1627	308	2029	358	2411
209	1289	259	1637	309	2039	359	2417
210	1291	260	1657	310	2053	360	2423
211	1297	261	1663	311	2063	361	2437
212	1301	262	1667	312	2069	362	2441
213	1303	263	1669	313	2081	363	2447
214	1307	264	1693	314	2083	364	2459
215	1319	265	1697	315	2087	365	2467
216	1321	266	1699	316	2089	366	2473
217	1327	267	1709	317	2099	367	2477
218	1361	268	1721	318	2111	368	2503
219	1367	269	1723	319	2113	369	2521
220	1373	270	1733	320	2129	370	2531
221	1381	271	1741	321	2131	371	2539
222	1399	272	1747	322	2137	372	2543
223	1409	273	1753	323	2141	373	2549
224	1423	274	1759	324	2143	374	2551
225	1427	275	1777	325	2153	375	2557
226	1429	276	1783	326	2161	376	2579
227	1433	277	1787	327	2179	377	2591
228	1439	278	1789	328	2203	378	2593
229	1447	279	1801	329	2207	379	2609
230	1451	280	1811	330	2213	380	2617
231	1453	281	1823	331	2221	381	2621
232	1459	282	1831	332	2237	382	2633
233	1471	283	1847	333	2239	383	2647
234	1481	284	1861	334	2243	384	2657
235	1483	285	1867	335	2251	385	2659
236	1487	286	1871	336	2267	386	2663
237	1489	287	1873	337	2269	387	2671
238	1493	288	1877	338	2273	388	2677
239	1499	289	1879	339	2281	389	2683
240	1511	290	1889	340	2287	390	2687
241	1523	291	1901	341	2293	391	2689
242	1531	292	1907	342	2297	392	2693
243	1543	293	1913	343	2309	393	2699
244	1549	294	1931	344	2311	394	2707
245	1553	295	1933	345	2333	395	2711
246	1559	296	1949	346	2339	396	2713
247	1567	297	1951	347	2341	397	2719
248	1571	298	1973	348	2347	398	2729
249	1579	299	1979	349	2351	399	2731
250	1583	300	1987	350	2357	400	2741

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n	p	n	p	n	p	n	p
401	2749	451	3187	501	3581	551	4001
402	2753	452	3191	502	3583	552	4003
403	2767	453	3203	503	3593	553	4007
404	2777	454	3209	504	3607	554	4013
405	2789	455	3217	505	3613	555	4019
406	2791	456	3221	506	3617	556	4021
407	2797	457	3229	507	3623	557	4027
408	2801	458	3251	508	3631	558	4049
409	2803	459	3253	509	3637	559	4051
410	2819	460	3257	510	3643	560	4057
411	2833	461	3259	511	3659	561	4073
412	2837	462	3271	512	3671	562	4079
413	2843	463	3299	513	3673	563	4091
414	2851	464	3301	514	3677	564	4093
415	2857	465	3307	515	3691	565	4099
416	2861	466	3313	516	3697	566	4111
417	2879	467	3319	517	3701	567	4127
418	2887	468	3323	518	3709	568	4129
419	2897	469	3329	519	3719	569	4133
420	2903	470	3331	520	3727	570	4139
421	2909	471	3343	521	3733	571	4153
422	2917	472	3347	522	3739	572	4157
423	2927	473	3359	523	3761	573	4159
424	2939	474	3361	524	3767	574	4177
425	2953	475	3371	525	3769	575	4201
426	2957	476	3373	526	3779	576	4211
427	2963	477	3389	527	3793	577	4217
428	2969	478	3391	528	3797	578	4219
429	2971	479	3407	529	3803	579	4229
430	2999	480	3413	530	3821	580	4231
431	3001	481	3433	531	3823	581	4241
432	3011	482	3449	532	3833	582	4243
433	3019	483	3457	533	3847	583	4253
434	3023	484	3461	534	3851	584	4259
435	3037	485	3463	535	3853	585	4261
436	3041	486	3467	536	3863	586	4271
437	3049	487	3469	537	3877	587	4273
438	3061	488	3491	538	3881	588	4283
439	3067	489	3499	539	3889	589	4289
440	3079	490	3511	540	3907	590	4297
441	3083	491	3517	541	3911	591	4327
442	3089	492	3527	542	3917	592	4337
443	3109	493	3529	543	3919	593	4339
444	3119	494	3533	544	3923	594	4349
445	3121	495	3539	545	3929	595	4357
446	3137	496	3541	546	3931	596	4363
447	3163	497	3547	547	3943	597	4373
448	3167	498	3557	548	3947	598	4391
449	3169	499	3559	549	3967	599	4397
450	3181	500	3571	550	3989	600	4409

TABLE OF PRIMES

n	p	n	p	n	p	n	p
601	4421	651	4861	701	5281	751	5701
602	4423	652	4871	702	5297	752	5711
603	4441	653	4877	703	5303	753	5717
604	4447	654	4889	704	5309	754	5737
605	4451	655	4903	705	5323	755	5741
606	4457	656	4909	706	5333	756	5743
607	4463	657	4919	707	5347	575	5749
608	4481	658	4931	708	5351	758	5779
609	4483	659	4933	709	5381	759	5783
610	4493	660	4937	710	5387	760	5791
611	4507	661	4943	711	5393	761	5801
612	4513	662	4951	712	5399	762	5807
613	4517	663	4957	713	5407	763	5813
614	4519	664	4967	714	5413	764	5821
615	4523	665	4969	715	5417	765	5827
616	4547	666	4973	716	5419	766	5839
617	4549	667	4987	717	5431	767	5843
618	4561	668	4993	718	5437	768	5849
619	4567	669	4999	719	5441	769	5851
620	4583	670	5003	720	5443	770	5857
621	4591	671	5009	721	5449	771	5861
622	4597	672	5011	722	5471	772	5867
623	4603	673	5021	723	5477	773	5869
624	4621	674	5023	724	5479	774	5879
625	4637	675	5039	725	5483	775	5881
626	4639	676	5051	726	5501	776	5897
627	4643	677	5059	727	5503	777	5903
628	4649	678	5077	728	5507	778	5923
629	4651	679	5081	729	5519	779	5927
630	4657	680	5087	730	5521	780	5939
631	4663	681	5099	731	5527	781	5953
632	4673	682	5101	732	5531	782	5981
633	4679	683	5107	733	5557	783	5987
634	4691	684	5113	734	5563	784	6007
635	4703	685	5119	735	5569	785	6011
636	4721	686	5147	736	5573	786	6029
637	4723	687	5153	737	5581	787	6037
638	4729	688	5167	738	5591	788	6043
639	4733	689	5171	739	5623	789	6047
640	4751	690	5179	740	5639	790	6053
641	4759	691	5189	741	5641	791	6067
642	4783	692	5197	742	5647	792	6073
643	4787	693	5209	743	5651	793	6079
644	4789	694	5227	477	5653	794	6089
645	4793	695	5231	745	5657	795	6091
646	4799	696	5233	746	5659	796	6101
647	4801	697	5237	747	5669	797	6113
648	4813	698	5261	748	5683	798	6121
649	4817	699	5273	749	5689	799	6131
650	4831	700	5279	750	5693	800	6133

TABLE OF PRIMES

n	p	n	p	n	p	n	p
801	6143	851	6577	901	7001	951	7507
802	6151	852	6581	902	7013	952	7517
803	6163	853	6599	903	7019	953	7523
804	6173	854	6607	904	7027	954	7529
805	6197	855	6619	905	7039	955	7537
806	6199	856	6637	906	7043	956	7541
807	6203	857	6653	907	7057	957	7547
808	6211	858	6659	908	7069	958	7549
809	6217	859	6661	909	7079	959	7559
810	6221	860	6673	910	7103	960	7561
811	6229	861	6679	911	7109	961	7573
812	6247	862	6689	912	7121	962	7577
813	6257	863	6691	913	7127	963	7583
814	6263	864	6701	914	7129	964	7589
815	6269	865	6703	915	7151	965	7591
816	6271	866	6709	916	7159	966	7603
817	6277	867	6719	917	7177	967	7607
818	6287	868	6733	918	7187	968	7621
819	6299	869	6737	919	7193	969	7639
820	6301	870	6761	920	7207	970	7643
821	6311	871	6763	921	7211	971	7649
822	6317	872	6779	922	7213	972	7669
823	6323	873	6781	923	7219	973	7673
824	6329	874	6791	924	7229	974	7681
825	6337	875	6793	925	7237	975	7687
826	6343	876	6803	926	7243	976	7691
827	6353	877	6823	927	7247	977	7699
828	6359	878	6827	928	7253	978	7703
829	6361	879	6829	929	7283	979	7717
830	6367	880	6833	930	7297	980	7723
831	6373	881	6841	931	7307	981	7727
832	6379	882	6857	932	7309	982	7741
833	6389	883	6863	933	7321	983	7753
834	6397	884	6869	934	7331	984	7757
835	6421	885	6871	935	7333	985	7759
836	6427	886	6883	936	7349	986	7789
837	6449	887	6899	937	7351	987	7793
838	6451	888	6907	938	7369	988	7817
839	6469	889	6911	939	7393	989	7823
840	6473	890	6917	940	7411	990	7829
841	6481	891	6947	941	7417	991	7841
842	6491	892	6949	942	7433	992	7853
843	6521	893	6959	943	7451	993	7867
844	6529	894	6961	944	7457	994	7873
845	6547	895	6967	945	7459	995	7877
846	6551	896	6971	946	7477	996	7879
847	6553	897	6977	947	7481	997	7883
848	6563	898	6983	948	7487	998	7901
849	6569	899	6991	949	7489	999	7907
850	6571	900	6997	950	7499	1000	7919

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n	p	n	p	n	p	n	p
1001	7927	1051	8389	1101	8837	1151	9293
1002	7933	1052	8419	1102	8839	1152	9311
1003	7937	1053	8423	1103	8849	1153	9319
1004	7949	1054	8429	1104	8861	1154	9323
1005	7951	1055	8431	1105	8863	1155	9337
1006	7963	1056	8443	1106	8867	1156	9341
1007	7993	1057	8447	1107	8887	1157	9343
1008	8009	1058	8461	1108	8893	1158	9349
1009	8011	1059	8467	1109	8923	1159	9371
1010	8017	1060	8501	1110	8929	1160	9377
1011	8039	1061	8513	1111	8933	1161	9391
1012	8053	1062	8521	1112	8941	1162	9397
1013	8059	1063	8527	1113	8951	1163	9403
1014	8069	1064	8537	1114	8963	1164	9413
1015	8081	1065	8539	1115	8969	1165	9419
1016	8087	1066	8543	1116	8971	1166	9421
1017	8089	1067	8563	1117	8999	1167	9431
1018	8093	1068	8573	1118	9001	1168	9433
1019	8101	1069	8581	1119	9007	1169	9437
1020	8111	1070	8597	1120	9011	1170	9439
1021	8117	1071	8599	1121	9013	1171	9461
1022	8123	1072	8609	1122	9029	1172	9463
1023	8147	1073	8623	1123	9041	1173	9467
1024	8161	1074	8627	1124	9043	1174	9473
1025	8167	1075	8629	1125	9049	1175	9479
1026	8171	1076	8641	1126	9059	1176	9491
1027	8179	1077	8647	1127	9067	1177	9497
1028	8191	1078	8663	1128	9091	1178	9511
1029	8209	1079	8669	1129	9103	1179	9521
1030	8219	1080	8677	1130	9109	1180	9533
1031	8221	1081	8681	1131	9127	1181	9539
1032	8231	1082	8689	1132	9133	1182	9547
1033	8233	1083	8693	1133	9137	1183	9551
1034	8237	1084	8699	1134	9151	1184	9587
1035	8243	1085	8707	1135	9157	1185	9601
1036	8263	1086	8713	1136	9161	1186	9613
1037	8269	1087	8719	1137	9173	1187	9619
1038	8273	1088	8731	1138	9181	1188	9623
1039	8287	1089	8737	1139	9187	1189	9629
1040	8291	1090	8741	1140	9199	1190	9631
1041	8293	1091	8747	1141	9203	1191	9643
1042	8297	1092	8753	1142	9209	1192	9649
1043	8311	1093	8761	1143	9221	1193	9661
1044	8317	1094	8779	1144	9227	1194	9677
1045	8329	1095	8783	1145	9239	1195	9679
1046	8353	1096	8803	1146	9241	1196	9689
1047	8363	1097	8807	1147	9257	1197	9697
1048	8369	1098	8819	1148	9277	1198	9719
1049	8377	1099	8821	1149	9281	1199	9721
1050	8387	1100	8831	1150	9283	1200	9733

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n	p
1201	9739
1202	9743
1203	9749
1204	9767
1205	9769
1206	9781
1207	9787
1208	9791
1209	9803
1210	9811
1211	9817
1212	9829
1213	9833
1214	9839
1215	9851
1216	9857
1217	9859
1218	9871
1219	9883
1220	9887
1221	9901
1222	9907
1223	9923
1224	9929
1225	9931
1226	9941
1227	9949
1228	9967
1229	9973

TABLE OF COMPOSITES

Composites with factors other than 2,3 or 5 are given in this table.

n	Factors	n	Factors	n	Factors
49	7*7	581	7*83	1001	7*11*13
77	7*11	583	11*53	1003	17*59
91	7*13	589	19*31	1007	19*53
119	7*17	611	13*47	1027	13*79
121	11*11	623	7*89	1037	17*61
133	7*19	629	17*37	1043	7*149
143	11*13	637	7*7*13	1057	7*151
161	7*23	649	11*59	1067	11*97
169	13*13	667	23*29	1073	29*37
187	11*17	671	11*61	1079	13*83
203	7*29	679	7*97	1081	23*47
209	11*19	689	13*53	1099	7*157
217	7*31	697	17*41	1111	11*101
221	13*17	703	19*37	1121	19*59
247	13*19	707	7*101	1127	7*7*23
253	11*23	713	23*31	1133	11*103
259	7*37	721	7*103	1139	17*67
287	7*41	731	17*43	1141	7*163
289	17*17	737	11*67	1147	31*37
299	13*23	749	7*107	1157	13*89
301	7*43	763	7*109	1159	19*61
319	11*29	767	13*59	1169	7*167
323	17*19	779	19*41	1177	11*107
329	7*47	781	11*71	1183	7*13*13
341	11*31	791	7*113	1189	29*41
343	7*7*7	793	13*61	1199	11*109
361	19*19	799	17*47	1207	17*71
371	7*53	803	11*73	1211	7*173
377	13*29	817	19*43	1219	23*53
391	17*23	833	7*7*17	1241	17*73
403	13*31	841	29*29	1243	11*113
407	11*37	847	7*11*11	1247	29*43
413	7*59	851	23*37	1253	7*179
427	7*61	869	11*79	1261	13*97
437	19*23	871	13*67	1267	7*181
451	11*41	889	7*127	1271	31*41
469	7*67	893	19*47	1273	19*67
473	11*43	899	29*31	1309	7*11*17
481	13*37	901	17*53	1313	13*101
493	17*29	913	11*83	1331	11*11*11
497	7*71	917	7*131	1333	31*43
511	7*73	923	13*71	1337	7*191
517	11*47	931	7*7*19	1339	13*103
527	17*31	943	23*41	1343	17*79
529	23*23	949	13*73	1349	19*71
533	13*41	959	7*137	1351	7*193
539	7*7*11	961	31*31	1357	23*59
551	19*29	973	7*139	1363	29*47
553	7*79	979	11*89	1369	37*37
559	13*43	989	23*43	1379	7*197

TABLE OF COMPOSITES

n	Factors	n	Factors	n	Factors
1387	19*73	1771	7*11*23	2147	19*113
1391	13*107	1781	13*137	2149	7*307
1393	7*199	1793	11*163	2159	17*127
1397	11*127	1799	7*257	2167	11*197
1403	23*61	1807	13*139	2171	13*167
1411	17*83	1813	7*7*37	2173	41*53
1417	13*109	1817	23*79	2177	7*311
1421	7*7*29	1819	17*107	2183	37*59
1441	11*131	1829	31*59	2189	11*199
1457	31*47	1837	11*167	2191	7*313
1463	7*11*19	1841	7*263	2197	13*13*13
1469	13*113	1843	19*97	2201	31*71
1477	7*211	1849	43*43	2209	47*47
1501	19*79	1853	17*109	2219	7*317
1507	11*137	1859	11*13*13	2227	17*131
1513	17*89	1883	7*269	2231	23*97
1517	37*41	1891	31*61	2233	7*11*29
1519	7*7*31	1897	7*271	2249	13*173
1529	11*139	1903	11*173	2257	37*61
1537	29*53	1909	23*83	2261	7*17*19
1541	23*67	1919	19*101	2263	31*73
1547	7*13*17	1921	17*113	2279	43*53
1561	7*223	1927	41*47	2291	29*79
1573	11*11*13	1937	13*149	2299	11*11*19
1577	19*83	1939	7*277	2303	7*7*47
1589	7*227	1943	29*67	2317	7*331
1591	37*43	1957	19*103	2321	11*211
1603	7*229	1961	37*53	2323	23*101
1631	7*233	1963	13*151	2327	13*179
1633	23*71	1967	7*281	2329	17*137
1639	11*149	1969	11*179	2353	13*181
1643	31*53	1981	7*283	2359	7*337
1649	17*97	1991	11*181	2363	17*139
1651	13*127	2009	7*7*41	2369	23*103
1661	11*151	2021	43*47	2387	7*11*31
1673	7*239	2023	7*17*17	2401	7*7*7*7
1679	23*73	2033	19*107	2407	29*83
1681	41*41	2041	13*157	2413	19*127
1687	7*241	2047	23*89	2419	41*59
1691	19*89	2051	7*293	2429	7*347
1703	13*131	2057	11*11*17	2431	11*13*17
1711	29*59	2059	29*71	2443	7*349
1717	17*101	2071	19*109	2449	31*79
1727	11*157	2077	31*67	2453	11*223
1729	7*13*19	2093	7*13*23	2461	23*107
1739	37*47	2101	11*191	2471	7*353
1751	17*103	2107	7*7*43	2479	37*67
1757	7*251	2117	29*73	2483	13*191
1763	41*43	2119	13*163	2489	19*131
1769	29*61	2123	11*193	2491	47*53

TABLE OF COMPOSITES

n	Factors	n	Factors	n	Factors
2497	11*227	2867	47*61	3179	11*17*17
2501	41*61	2869	19*151	3193	31*103
2507	23*109	2873	13*13*17	3197	23*139
2509	13*193	2881	43*67	3199	7*457
2513	7*359	2891	7*7*59	3211	13*13*19
2519	11*229	2893	11*263	3223	11*293
2527	7*19*19	2899	13*223	3227	7*461
2533	17*149	2911	41*71	3233	53*61
2537	43*59	2921	23*127	3239	41*79
2561	13*197	2923	37*79	3241	7*463
2563	11*233	2929	29*101	3247	17*191
2567	17*151	2933	7*419	3263	13*251
2569	7*367	2941	17*173	3269	7*467
2573	31*83	2947	7*421	3277	29*113
2581	29*89	2951	13*227	3281	17*193
2587	13*199	2959	11*269	3283	7*7*67
2597	7*7*53	2977	13*229	3287	19*173
2599	23*113	2981	11*271	3289	11*13*23
2603	19*137	2983	19*157	3293	37*89
2611	7*373	2987	29*103	3311	7*11*43
2623	43*61	2989	7*7*61	3317	31*107
2627	37*71	2993	41*73	3337	47*71
2629	11*239	3007	31*97	3341	13*257
2639	7*13*29	3013	23*131	3349	17*197
2641	19*139	3017	7*431	3353	7*479
2651	11*241	3029	13*233	3367	7*13*37
2653	7*379	3031	7*433	3377	11*307
2669	17*157	3043	17*179	3379	31*109
2681	7*383	3047	11*277	3383	17*199
2701	37*73	3053	43*71	3397	43*79
2717	11*13*19	3059	7*19*23	3401	19*179
2723	7*389	3071	37*83	3403	41*83
2737	7*17*23	3073	7*439	3409	7*487
2743	13*211	3077	17*181	3419	13*263
2747	41*67	3091	11*281	3421	11*311
2759	31*89	3097	19*163	3427	23*149
2761	11*251	3101	7*443	3431	47*73
2771	17*163	3103	29*107	3437	7*491
2773	47*59	3107	13*239	3439	19*181
2779	7*397	3113	11*283	3443	11*313
2783	11*11*23	3127	53*59	3451	7*17*29
2807	7*401	3131	31*101	3473	23*151
2809	53*53	3133	13*241	3479	7*7*71
2813	29*97	3139	43*73	3481	59*59
2821	7*13*31	3143	7*449	3487	11*317
2827	11*257	3149	47*67	3493	7*499
2831	19*149	3151	23*137	3497	13*269
2839	17*167	3157	7*11*41	3503	31*113
2849	7*11*37	3161	29*109	3509	11*11*29
2863	7*409	3173	19*167	3521	7*503

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n	Factors	n	Factors	n	Factors
3523	13*271	3887	13*13*23	4223	41*103
3551	53*67	3893	17*229	4237	19*223
3553	11*17*19	3899	7*557	4247	31*137
3563	7*509	3901	47*83	4249	7*607
3569	43*83	3913	7*13*43	4267	17*251
3577	7*7*73	3937	31*127	4277	7*13*47
3587	17*211	3941	7*563	4279	11*389
3589	37*97	3949	11*359	4291	7*613
3599	59*61	3953	59*67	4301	11*17*23
3601	13*277	3959	37*107	4303	13*331
3611	23*157	3961	17*233	4307	59*73
3619	7*11*47	3971	11*19*19	4309	31*139
3629	19*191	3973	29*137	4313	19*227
3641	11*331	3977	41*97	4319	7*617
3647	7*521	3979	23*173	4321	29*149
3649	41*89	3983	7*569	4331	61*71
3653	13*281	3991	13*307	4333	7*619
3661	7*523	3997	7*571	4343	43*101
3667	19*193	4009	19*211	4351	19*229
3679	13*283	4031	29*139	4361	7*7*89
3683	29*127	4033	37*109	4367	11*397
3689	7*17*31	4037	11*367	4369	17*257
3703	7*23*23	4039	7*577	4379	29*151
3707	11*337	4043	13*311	4381	13*337
3713	47*79	4061	31*131	4387	41*107
3721	61*61	4063	17*239	4393	23*191
3731	7*13*41	4067	7*7*83	4399	53*83
3737	37*101	4069	13*313	4403	7*17*37
3743	19*197	4081	7*11*53	4411	11*401
3749	23*163	4087	61*67	4417	7*631
3751	11*11*31	4097	17*241	4427	19*233
3757	13*17*17	4103	11*373	4429	43*103
3763	53*71	4109	7*587	4433	11*13*31
3773	7*7*7*11	4117	23*179	4439	23*193
3781	19*199	4121	13*317	4453	61*73
3787	7*541	4123	7*19*31	4459	7*7*7*13
3791	17*223	4141	41*101	4469	41*109
3799	29*131	4147	11*13*29	4471	17*263
3809	13*293	4151	7*593	4477	11*11*37
3811	37*103	4163	23*181	4487	7*641
3817	11*347	4169	11*379	4489	67*67
3827	43*89	4171	43*97	4499	11*409
3829	7*547	4181	37*113	4501	7*643
3839	11*349	4183	47*89	4511	13*347
3841	23*167	4187	53*79	4529	7*647
3857	7*19*29	4189	59*71	4531	23*197
3859	17*227	4193	7*599	4537	13*349
3869	53*73	4199	13*17*19	4541	19*239
3871	7*7*79	4207	7*601	4543	7*11*59
3883	11*353	4213	11*383	4553	29*157

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n	Factors	n	Factors	n	Factors
4559	47*97	4879	7*17*41	5219	17*307
4571	7*653	4883	19*257	5221	23*227
4573	17*269	4891	67*73	5239	13*13*31
4577	23*199	4897	59*83	5243	7*7*107
4579	19*241	4901	13*13*29	5249	29*181
4589	13*353	4907	7*701	5251	59*89
4601	43*107	4913	17*17*17	5257	7*751
4607	17*271	4921	7*19*37	5263	19*277
4609	11*419	4927	13*379	5267	23*229
4613	7*659	4939	11*449	5269	11*479
4619	31*149	4949	7*7*101	5287	17*311
4627	7*661	4961	11*11*41	5291	11*13*37
4631	11*421	4963	7*709	5293	67*79
4633	41*113	4979	13*383	5299	7*757
4661	59*79	4981	17*293	5311	47*113
4667	13*359	4991	7*23*31	5317	13*409
4669	7*23*29	4997	19*263	5321	17*313
4681	31*151	5017	29*173	5327	7*761
4687	43*109	5027	11*457	5329	73*73
4693	13*19*19	5029	47*107	5339	19*281
4697	7*11*61	5033	7*719	5341	7*7*109
4699	37*127	5041	71*71	5353	53*101
4709	17*277	5047	7*7*103	5357	11*487
4711	7*673	5053	31*163	5359	23*233
4717	53*89	5057	13*389	5363	31*173
4727	29*163	5063	61*83	5369	7*13*59
4739	7*677	5069	37*137	5371	41*131
4741	11*431	5071	11*461	5377	19*283
4747	47*101	5083	13*17*23	5383	7*769
4753	7*7*97	5089	7*727	5389	17*317
4757	67*71	5093	11*463	5401	11*491
4763	11*433	5111	19*269	5411	7*773
4769	19*251	5117	7*17*43	5423	11*17*29
4771	13*367	5123	47*109	5429	61*89
4777	17*281	5129	23*223	5447	13*419
4781	7*683	5131	7*733	5453	7*19*41
4807	11*19*23	5137	11*467	5459	53*103
4811	17*283	5141	53*97	5461	43*127
4819	61*79	5143	37*139	5467	7*11*71
4823	7*13*53	5149	19*271	5473	13*421
4829	11*439	5159	7*11*67	5489	11*499
4837	7*691	5161	13*397	5491	17*17*19
4841	47*103	5173	7*739	5497	23*239
4843	29*167	5177	31*167	5509	7*787
4847	37*131	5183	71*73	5513	37*149
4849	13*373	5191	29*179	5533	11*503
4853	23*211	5201	7*743	5537	7*7*113
4859	43*113	5203	11*11*43	5539	29*191
4867	31*157	5207	41*127	5543	23*241
4873	11*443	5213	13*401	5549	31*179

TABLE OF COMPOSITES

n	Factors	n	Factors	n	Factors
5551	7*13*61	5909	19*311	6209	7*887
5561	67*83	5911	23*257	6223	7*7*127
5567	19*293	5917	61*97	6227	13*479
5579	7*797	5921	31*191	6233	23*271
5587	37*151	5929	7*7*11*11	6239	17*367
5593	7*17*47	5933	17*349	6241	79*79
5597	29*193	5941	13*457	6251	7*19*47
5599	11*509	5947	19*313	6253	13*13*37
5603	13*431	5951	11*541	6259	11*569
5609	71*79	5957	7*23*37	6281	11*571
5611	31*181	5959	59*101	6283	61*103
5617	41*137	5963	67*89	6289	19*311
5621	7*11*73	5969	47*127	6293	7*29*31
5627	17*331	5971	7*853	6307	7*17*53
5629	13*433	5977	43*139	6313	59*107
5633	43*131	5983	31*193	6319	71*89
5663	7*809	5989	53*113	6331	13*487
5671	53*107	5993	13*461	6341	17*373
5677	7*811	5999	7*857	6347	11*577
5681	13*19*23	6001	17*353	6349	7*907
5687	11*11*47	6013	7*859	6371	23*277
5699	41*139	6017	11*547	6377	7*911
5707	13*439	6019	13*463	6383	13*491
5713	29*197	6023	19*317	6391	7*11*83
5719	7*19*43	6031	37*163	6401	37*173
5723	59*97	6041	7*863	6403	19*337
5729	17*337	6049	23*263	6407	43*149
5731	11*521	6059	73*83	6409	13*17*29
5747	7*821	6061	11*19*29	6413	11*11*53
5753	11*523	6071	13*467	6419	7*7*131
5759	13*443	6077	59*103	6431	59*109
5761	7*823	6083	7*11*79	6433	7*919
5767	73*79	6097	7*13*67	6437	41*157
5771	29*199	6103	17*359	6439	47*137
5773	23*251	6107	31*197	6443	17*379
5777	53*109	6109	41*149	6457	11*587
5789	7*827	6119	29*211	6461	7*13*71
5797	11*17*31	6127	11*557	6463	23*281
5803	7*829	6137	17*19*19	6467	29*223
5809	37*157	6139	7*877	6479	11*19*31
5819	11*23*23	6149	11*13*43	6487	13*499
5831	7*7*7*17	6157	47*131	6493	43*151
5833	19*307	6161	61*101	6497	73*89
5837	13*449	6167	7*881	6499	67*97
5863	11*13*41	6169	31*199	6503	7*929
5873	7*839	6179	37*167	6509	23*283
5887	7*29*29	6181	7*883	6511	17*383
5891	43*137	6187	23*269	6517	7*7*7*19
5893	71*83	6191	41*151	6523	11*593
5899	17*347	6193	11*563	6527	61*107

TABLE OF COMPOSITES

n	Factors	n	Factors	n	Factors
6533	47*139	6877	13*23*23	7183	11*653
6539	13*503	6881	7*983	7189	7*13*79
6541	31*211	6887	71*97	7199	23*313
6557	79*83	6889	83*83	7201	19*379
6559	7*937	6893	61*113	7217	7*1031
6583	29*227	6901	67*103	7223	31*233
6587	7*941	6913	31*223	7231	7*1033
6589	11*599	6919	11*17*37	7241	13*557
6593	19*347	6923	7*23*43	7249	11*659
6601	7*23*41	6929	13*13*41	7259	7*17*61
6611	11*601	6931	29*239	7261	53*137
6613	17*389	6937	7*991	7267	13*13*43
6617	13*509	6941	11*631	7271	11*661
6623	37*179	6943	53*131	7273	7*1039
6629	7*947	6953	17*409	7277	19*383
6631	19*349	6973	19*367	7279	29*251
6641	29*229	6979	7*997	7289	37*197
6643	7*13*73	6989	29*241	7291	23*317
6647	17*17*23	7003	47*149	7301	7*7*149
6649	61*109	7007	7*7*11*13	7303	67*109
6667	59*113	7009	43*163	7313	71*103
6671	7*953	7021	7*17*59	7319	13*563
6677	11*607	7031	79*89	7327	17*431
6683	41*163	7033	13*541	7337	11*23*29
6697	37*181	7037	31*227	7339	41*179
6707	19*353	7049	7*19*53	7343	7*1049
6713	7*7*137	7051	11*641	7357	7*1051
6721	11*13*47	7061	23*307	7361	17*433
6727	7*31*31	7063	7*1009	7363	37*199
6731	53*127	7067	37*191	7367	53*139
6739	23*293	7073	11*643	7373	73*101
6743	11*613	7081	73*97	7379	47*157
6749	17*397	7087	19*373	7381	11*11*61
6751	43*157	7091	7*1013	7387	83*89
6757	29*233	7093	41*173	7391	19*389
6767	67*101	7097	47*151	7397	13*569
6769	7*967	7099	31*229	7399	7*7*151
6773	13*521	7111	13*547	7403	11*673
6787	11*617	7117	11*647	7409	31*239
6797	7*971	7123	17*419	7421	41*181
6799	13*523	7133	7*1019	7423	13*571
6809	11*619	7139	11*11*59	7427	7*1061
6811	7*7*139	7141	37*193	7429	17*19*23
6817	17*401	7147	7*1021	7439	43*173
6821	19*359	7153	23*311	7441	7*1063
6839	7*977	7157	17*421	7447	11*677
6847	41*167	7163	13*19*29	7453	29*257
6851	13*17*31	7169	67*107	7463	17*439
6853	7*11*89	7171	71*101	7469	7*11*97
6859	19*19*19	7181	43*167	7471	31*241

TABLE OF COMPOSITES

n	Factors	n	Factors	n	Factors
7483	7*1069	7831	41*191	8141	7*1163
7493	59*127	7837	17*461	8143	17*479
7501	13*577	7843	11*23*31	8149	29*281
7511	7*29*37	7847	7*19*59	8153	31*263
7513	11*683	7849	47*167	8159	41*199
7519	73*103	7859	29*271	8173	11*743
7531	17*443	7861	7*1123	8177	13*17*37
7543	19*397	7871	17*463	8183	7*7*167
7553	7*13*83	7889	7*7*7*23	8189	19*431
7567	7*23*47	7891	13*607	8197	7*1171
7571	67*113	7897	53*149	8201	59*139
7579	11*13*53	7903	7*1129	8203	13*631
7597	71*107	7909	11*719	8207	29*283
7601	11*691	7913	41*193	8213	43*191
7609	7*1087	7921	89*89	8227	19*433
7613	23*331	7931	7*11*103	8239	7*11*107
7619	19*401	7939	17*467	8249	73*113
7627	29*263	7943	13*13*47	8251	37*223
7631	13*587	7957	73*109	8257	23*359
7633	17*449	7961	19*419	8261	11*751
7637	7*1091	7967	31*257	8267	7*1181
7651	7*1093	7969	13*613	8279	17*487
7657	13*19*31	7973	7*17*67	8281	7*7*13*13
7661	47*163	7979	79*101	8299	43*193
7663	79*97	7981	23*347	8303	19*19*23
7667	11*17*41	7987	7*7*163	8309	7*1187
7679	7*1097	7991	61*131	8321	53*157
7693	7*7*157	7997	11*727	8323	7*29*41
7697	43*179	7999	19*421	8327	11*757
7709	13*593	8003	53*151	8333	13*641
7711	11*701	8021	13*617	8339	31*269
7721	7*1103	8023	71*113	8341	19*439
7729	59*131	8027	23*349	8347	17*491
7733	11*19*37	8029	7*31*37	8351	7*1193
7739	71*109	8033	29*277	8357	61*137
7747	61*127	8041	11*17*43	8359	13*643
7751	23*337	8047	13*619	8371	11*761
7763	7*1109	8051	83*97	8381	17*17*29
7769	17*457	8057	7*1151	8383	83*101
7771	19*409	8063	11*733	8393	7*11*109
7777	7*11*101	8071	7*1153	8399	37*227
7781	31*251	8077	41*197	8401	31*271
7783	43*181	8083	59*137	8407	7*1201
7787	13*599	8099	7*13*89	8411	13*647
7799	11*709	8107	11*11*67	8413	47*179
7801	29*269	8113	7*19*61	8417	19*443
7807	37*211	8119	23*353	8437	11*13*59
7811	73*107	8129	11*739	8441	23*367
7813	13*601	8131	47*173	8449	7*17*71
7819	7*1117	8137	79*103	8453	79*107

TABLE OF COMPOSITES

n	Factors	n	Factors	n	Factors
8459	11*769	8789	11*17*47	9101	19*479
8471	43*197	8791	59*149	9107	7*1301
8473	37*229	8797	19*463	9113	13*701
8477	7*7*173	8801	13*677	9119	11*829
8479	61*139	8809	23*383	9121	7*1303
8483	17*499	8813	7*1259	9131	23*397
8489	13*653	8827	7*13*97	9139	13*19*37
8491	7*1213	8833	11*11*73	9143	41*223
8497	29*293	8843	37*239	9149	7*1307
8503	11*773	8851	53*167	9163	7*7*11*17
8507	47*181	8857	17*521	9167	89*103
8509	67*127	8869	7*7*181	9169	53*173
8519	7*1217	8873	19*467	9179	67*137
8531	19*449	8879	13*683	9191	7*13*101
8533	7*23*53	8881	83*107	9193	29*317
8549	83*103	8891	17*523	9197	17*541
8551	17*503	8897	7*31*41	9211	61*151
8557	43*199	8899	11*809	9217	13*709
8561	7*1223	8903	29*307	9223	23*401
8567	13*659	8909	59*151	9229	11*839
8569	11*19*41	8911	7*19*67	9233	7*1319
8579	23*373	8917	37*241	9247	7*1321
8587	31*277	8921	11*811	9251	11*29*29
8591	11*11*71	8927	79*113	9253	19*487
8593	13*661	8939	7*1277	9259	47*197
8603	7*1229	8947	23*389	9263	59*157
8611	79*109	8953	7*1279	9269	13*23*31
8617	7*1231	8957	13*13*53	9271	73*127
8621	37*233	8959	17*17*31	9287	37*251
8633	89*97	8977	47*191	9289	7*1327
8639	53*163	8981	7*1283	9299	17*547
8651	41*211	8983	13*691	9301	71*131
8653	17*509	8987	11*19*43	9307	41*227
8657	11*787	8989	89*101	9313	67*139
8659	7*1237	8993	17*23*23	9317	7*11*11*11
8671	13*23*29	9017	71*127	9329	19*491
8683	19*457	9019	29*311	9331	7*31*43
8687	7*17*73	9023	7*1289	9347	13*719
8701	7*11*113	9031	11*821	9353	47*199
8711	31*281	9037	7*1291	9359	7*7*191
8717	23*379	9047	83*109	9361	11*23*37
8723	11*13*61	9053	11*823	9367	17*19*29
8729	7*29*43	9061	13*17*41	9373	7*13*103
8743	7*1249	9071	47*193	9379	83*113
8749	13*673	9073	43*211	9383	11*853
8759	19*461	9077	29*313	9389	41*229
8767	11*797	9079	7*1297	9401	7*17*79
8771	7*7*179	9083	31*293	9407	23*409
8773	31*283	9089	61*149	9409	97*97
8777	67*131	9097	11*827	9427	11*857

TABLE OF COMPOSITES

n	Factors
9443	7*19*71
9449	11*859
9451	13*727
9457	7*7*193
9469	17*557
9481	19*499
9487	53*179
9493	11*863
9499	7*23*59
9503	13*17*43
9509	37*257
9517	31*307
9523	89*107
9527	7*1361
9529	13*733
9541	7*29*47
9553	41*233
9557	19*503
9559	11*11*79
9563	73*131
9569	7*1367
9571	17*563
9577	61*157
9581	11*13*67
9583	7*37*37
9589	43*223
9593	53*181
9599	29*331
9607	13*739
9611	7*1373
9617	59*163
9637	23*419
9641	31*311
9647	11*877
9653	7*7*197
9659	13*743
9667	7*1381
9671	19*509
9673	17*569
9683	23*421
9691	11*881
9701	89*109
9703	31*313
9707	17*571
9709	7*19*73
9713	11*883
9727	71*137
9731	37*263
9737	7*13*107
9751	7*7*199
9757	11*887
9761	43*227
9763	13*751
9773	29*337
9779	7*11*127
9793	7*1399
9797	97*101
9799	41*239
9809	17*577
9821	7*23*61
9823	11*19*47
9827	31*317
9841	13*757
9847	43*229
9853	59*167
9863	7*1409
9869	71*139
9877	7*17*83
9881	41*241
9889	11*29*31
9893	13*761
9899	19*521
9911	11*17*53
9913	23*431
9917	47*211
9919	7*13*109
9937	19*523
9943	61*163
9947	7*7*7*29
9953	37*269
9959	23*433
9961	7*1423
9971	13*13*59
9977	11*907
9979	17*587
9983	67*149
9989	7*1427
9991	97*103
9997	13*769

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
4	1 2 4
6	1 2 3 6
8	1 2 4 8
9	1 3 9
10	1 2 5 10
12	1 2 3 4 6 12
14	1 2 7 14
15	1 3 5 15
16	1 2 4 8 16
18	1 2 3 6 9 18
20	1 2 4 5 10 20
21	1 3 7 21
22	1 2 11 22
24	1 2 3 4 6 8 12 24
25	1 5 25
26	1 2 13 26
27	1 3 9 27
28	1 2 4 7 14 28
30	1 2 3 5 6 10 15 30
32	1 2 4 8 16 32
33	1 3 11 33
34	1 2 17 34
35	1 5 7 35
36	1 2 3 4 6 9 12 18 36
38	1 2 19 38
39	1 3 13 39
40	1 2 4 5 8 10 20 40
42	1 2 3 6 7 14 21 42
44	1 2 4 11 22 44
45	1 3 5 9 15 45
46	1 2 23 46
48	1 2 3 4 6 8 12 16 24 48
49	1 7 49
50	1 2 5 10 25 50
51	1 3 17 51
52	1 2 4 13 26 52
54	1 2 3 6 9 18 27 54
55	1 5 11 55
56	1 2 4 7 8 14 28 56
57	1 3 19 57
58	1 2 29 58
60	1 2 3 4 5 6 10 12 15 20 30 60
62	1 2 31 62
63	1 3 7 9 21 63
64	1 2 4 8 16 32 64
65	1 5 13 65
66	1 2 3 6 11 22 33 66
68	1 2 4 17 34 68
69	1 3 23 69
70	1 2 5 7 10 14 35 70
72	1 2 3 4 6 8 9 12 18 24 36 72
74	1 2 37 74
75	1 3 5 15 25 75
76	1 2 4 19 38 76
77	1 7 11 77
78	1 2 3 6 13 26 39 78
80	1 2 4 5 8 10 16 20 40 80
81	1 3 9 27 81
82	1 2 41 82
84	1 2 3 4 6 7 12 14 21 28 42 84
85	1 5 17 85
86	1 2 43 86
87	1 3 29 87
88	1 2 4 8 11 22 44 88
90	1 2 3 5 6 9 10 15 18 30 45 90
91	1 7 13 91
92	1 2 4 23 46 92
93	1 3 31 93
94	1 2 47 94
95	1 5 19 95
96	1 2 3 4 6 8 12 16 24 32 48 96
98	1 2 7 14 49 98
99	1 3 9 11 33 99
100	1 2 4 5 10 20 25 50 100
102	1 2 3 6 17 34 51 102
104	1 2 4 8 13 26 52 104
105	1 3 5 7 15 21 35 105
106	1 2 53 106
108	1 2 3 4 6 9 12 18 27 36 54 108
110	1 2 5 10 11 22 55 110
111	1 3 37 111
112	1 2 4 7 8 14 16 28 56 112
114	1 2 3 6 19 38 57 114
115	1 5 23 115
116	1 2 4 29 58 116
117	1 3 9 13 39 117
118	1 2 59 118
119	1 7 17 119
120	1 2 3 4 5 6 8 10 12 15 20 24 30 40 60 120
121	1 11 121
122	1 2 61 122
123	1 3 41 123
124	1 2 4 31 62 124
125	1 5 25 125

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
126	1 2 3 6 7 9 14 18 21 42 63 126
128	1 2 4 8 16 32 64 128
129	1 3 43 129
130	1 2 5 10 13 26 65 130
132	1 2 3 4 6 11 12 22 33 44 66 132
133	1 7 19 133
134	1 2 67 134
135	1 3 5 9 15 27 45 135
136	1 2 4 8 17 34 68 136
138	1 2 3 6 23 46 69 138
140	1 2 4 5 7 10 14 20 28 35 70 140
141	1 3 47 141
142	1 2 71 142
143	1 11 13 143
144	1 2 3 4 6 8 9 12 16 18 24 36 48 72 144
145	1 5 29 145
146	1 2 73 146
147	1 3 7 21 49 147
148	1 2 4 37 74 148
150	1 2 3 5 6 10 15 25 30 50 75 150
152	1 2 4 8 19 38 76 152
153	1 3 9 17 51 153
154	1 2 7 11 14 22 77 154
155	1 5 31 155
156	1 2 3 4 6 12 13 26 39 52 78 156
158	1 2 79 158
159	1 3 53 159
160	1 2 4 5 8 10 16 20 32 40 80 160
161	1 7 23 161
162	1 2 3 6 9 18 27 54 81 162
164	1 2 4 41 82 164
165	1 3 5 11 15 33 55 165
166	1 2 83 166
168	1 2 3 4 6 7 8 12 14 21 24 28 42 56 84 168
169	1 13 169
170	1 2 5 10 17 34 85 170
171	1 3 9 19 57 171
172	1 2 4 43 86 172
174	1 2 3 6 29 58 87 174
175	1 5 7 25 35 175

N	FACTORS
176	1 2 4 8 11 16 22 44 88 176
177	1 3 59 177
178	1 2 89 178
180	1 2 3 4 5 6 9 10 12 15 18 20 30 36 45 60 90 180
182	1 2 7 13 14 26 91 182
183	1 3 61 183
184	1 2 4 8 23 46 92 184
185	1 5 37 185
186	1 2 3 6 31 62 93 186
187	1 11 17 187
188	1 2 4 47 94 188
189	1 3 7 9 21 27 63 189
190	1 2 5 10 19 38 95 190
192	1 2 3 4 6 8 12 16 24 32 48 64 96 192
194	1 2 97 194
195	1 3 5 13 15 39 65 195
196	1 2 4 7 14 28 49 98 196
198	1 2 3 6 9 11 18 22 33 66 99 198
200	1 2 4 5 8 10 20 25 40 50 100 200
201	1 3 67 201
202	1 2 101 202
203	1 7 29 203
204	1 2 3 4 6 12 17 34 51 68 102 204
205	1 5 41 205
206	1 2 103 206
207	1 3 9 23 69 207
208	1 2 4 8 13 16 26 52 104 208
209	1 11 19 209
210	1 2 3 5 6 7 10 14 15 21 30 35 42 70 140 210
212	1 2 4 53 106 212
213	1 3 71 213
214	1 2 107 214
215	1 5 43 215
216	1 2 3 4 6 8 9 12 18 24 27 36 54 72 108 216
217	1 7 31 217
218	1 2 109 218
219	1 3 73 219
220	1 2 4 5 10 11 20 22 44 55 110 220
221	1 13 17 221
222	1 2 3 6 37 74 111 222
224	1 2 4 7 8 14 16 28 32 56 112 224
225	1 3 5 9 15 25 45 75 225
226	1 2 113 226

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
228	1 2 3 4 6 12 19 38 57 76 114 228
230	1 2 5 10 23 46 115 230
231	1 3 7 11 21 33 77 231
232	1 2 4 8 29 58 116 232
234	1 2 3 6 9 13 18 26 39 78 117 234
235	1 5 47 235
236	1 2 4 59 118 236
237	1 3 79 237
238	1 2 7 14 17 34 119 238
240	1 2 3 4 5 6 8 10 12 15 16 20 24 30 40 48 60 80 120 240
242	1 2 11 22 121 242
243	1 3 9 27 81 243
244	1 2 4 61 122 244
245	1 5 7 35 49 245
246	1 2 3 6 41 82 123 246
247	1 13 19 247
248	1 2 4 8 31 62 124 248
249	1 3 83 249
250	1 2 5 10 25 50 125 250
252	1 2 3 4 6 7 9 12 14 18 21 28 36 42 63 84 126 252
253	1 11 23 253
254	1 2 127 254
255	1 3 5 15 17 51 85 255
256	1 2 4 8 16 32 64 128 256
258	1 2 3 6 43 86 129 258
259	1 7 37 259
260	1 2 4 5 10 13 20 26 52 65 130 260
261	1 3 9 29 87 261
262	1 2 131 262
264	1 2 3 4 6 8 11 12 22 24 33 44 66 88 132 264
265	1 5 53 265
266	1 2 7 14 19 38 133 266
267	1 3 89 267
268	1 2 4 67 134 268
270	1 2 3 5 6 9 10 15 18 27 30 45 54 90 135 270
272	1 2 4 8 16 17 34 68 136 272
273	1 3 7 13 21 39 91 273
274	1 2 137 274
275	1 5 11 25 55 275
276	1 2 3 4 6 12 23 46 69 92 138 276
278	1 2 139 278
279	1 3 9 31 93 279
280	1 2 4 5 7 8 10 14 20 28 35 40 56 70 140 280
282	1 2 3 6 47 94 141 282
284	1 2 4 71 142 284
285	1 3 5 15 19 57 95 285
286	1 2 11 13 22 26 143 286
287	1 7 41 287
288	1 2 3 4 6 8 9 12 16 18 24 32 36 48 72 96 144 288
289	1 17 289
290	1 2 5 10 29 58 145 290
291	1 3 97 291
292	1 2 4 73 146 292
294	1 2 3 6 7 14 21 42 49 98 147 294
295	1 5 59 295
296	1 2 4 8 37 74 148 296
297	1 3 9 11 27 33 99 297
298	1 2 149 298
299	1 13 23 299
300	1 2 3 4 5 6 10 12 15 20 25 30 50 60 75 100 150 300
301	1 7 43 301
302	1 2 151 302
303	1 3 101 303
304	1 2 4 8 16 19 38 76 152 304
305	1 5 61 305
306	1 2 3 6 9 17 18 34 51 102 153 306
308	1 2 4 7 11 14 22 28 44 77 154 308
309	1 3 103 309
310	1 2 5 10 31 62 155 310
312	1 2 3 4 6 8 12 13 24 26 39 52 78 104 156 312
314	1 2 157 314
315	1 3 5 7 9 15 21 35 45 63 105 315
316	1 2 4 79 158 316
318	1 2 3 6 53 106 159 318
319	1 11 29 319
320	1 2 4 5 8 10 16 20 32 40 64 80 160 320
321	1 3 107 321
322	1 2 7 14 23 46 161 322
323	1 17 19 323

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
324	1 2 3 4 6 9 12 18 27 36 54 81 108 162 324
325	1 5 13 25 65 325
326	1 2 163 326
327	1 3 109 327
328	1 2 4 8 41 82 164 328
329	1 7 47 329
330	1 2 3 5 6 10 11 15 22 30 33 55 66 110 165 330
332	1 2 4 83 166 332
333	1 3 9 37 111 333
334	1 2 167 334
335	1 5 67 335
336	1 2 3 4 6 7 8 12 14 16 21 24 28 42 48 56 84 112 168 336
338	1 2 13 26 169 338
339	1 3 113 339
340	1 2 4 5 10 17 20 34 68 85 170 340
341	1 11 31 341
342	1 2 3 6 9 18 19 38 57 114 171 342
343	1 7 49 343
344	1 2 4 8 43 86 172 344
345	1 3 5 15 23 69 115 345
346	1 2 173 346
348	1 2 3 4 6 12 29 58 87 116 174 348
350	1 2 5 7 10 14 25 35 50 70 175 350
351	1 3 9 13 27 39 117 351
352	1 2 4 8 11 16 22 32 44 88 176 352
354	1 2 3 6 59 118 177 354
355	1 5 71 355
356	1 2 4 89 178 356
357	1 3 7 17 21 51 119 357
358	1 2 179 358
360	1 2 3 4 5 6 8 9 10 12 15 18 20 24 30 36 40 45 60 72 90 120 180 360
361	1 19 361
362	1 2 181 362
363	1 3 11 33 121 363
364	1 2 4 7 13 14 26 28 52 91 182 364
365	1 5 73 365
366	1 2 3 6 61 122 183 366
368	1 2 4 8 16 23 46 92 184 368
369	1 3 9 41 123 369
370	1 2 5 10 37 74 185 370
371	1 7 53 371
372	1 2 3 4 6 12 31 62 93 124 186 372
374	1 2 11 17 22 34 187 374
375	1 3 5 15 25 75 125 375
376	1 2 4 8 47 94 188 376
377	1 13 29 377
378	1 2 3 6 7 9 14 18 21 27 42 54 63 126 189 378
380	1 2 4 5 10 19 20 38 76 95 190 380
381	1 3 127 381
382	1 2 191 382
384	1 2 3 4 6 8 12 16 24 32 48 64 96 128 192 384
385	1 5 7 11 35 55 77 385
386	1 2 193 386
387	1 3 9 43 129 387
388	1 2 4 97 194 388
390	1 2 3 5 6 10 13 15 26 30 39 65 78 130 195 390
391	1 17 23 391
392	1 2 4 7 8 14 28 49 56 98 196 392
393	1 3 131 393
394	1 2 197 394
395	1 5 79 395
396	1 2 3 4 6 9 11 12 18 22 33 36 44 66 99 132 198 396
398	1 2 199 398
399	1 3 7 19 21 57 133 399
400	1 2 4 5 8 10 16 20 25 40 50 80 100 200 400
402	1 2 3 6 67 134 201 402
403	1 13 31 403
404	1 2 4 101 202 404
405	1 3 5 9 15 27 45 81 135 405
406	1 2 7 14 29 58 203 406
407	1 11 37 407
408	1 2 3 4 6 8 12 17 24 34 51 68 102 136 204 408
410	1 2 5 10 41 82 205 410
411	1 3 137 411
412	1 2 4 103 206 412

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
413	1 7 59 413
414	1 2 3 6 9 18 23 46 69 138 207 414
415	1 5 83 415
416	1 2 4 8 13 16 26 32 52 104 208 416
417	1 3 139 417
418	1 2 11 19 22 38 209 418
420	1 2 3 4 5 6 7 10 12 14 15 20 21 28 30 35 42 60 70 84 105 140 210 420
422	1 2 211 422
423	1 3 9 47 141 423
424	1 2 4 8 53 106 212 424
425	1 5 17 25 85 425
426	1 2 3 6 71 142 213 426
427	1 7 61 427
428	1 2 4 107 214 428
429	1 3 11 13 33 39 143 429
430	1 2 5 10 43 86 215 430
432	1 2 3 4 6 8 9 12 16 18 24 27 36 48 54 72 108 144 216 432
434	1 2 7 14 31 62 217 434
435	1 3 5 15 29 87 145 435
436	1 2 4 109 218 436
437	1 19 23 437
438	1 2 3 6 73 146 219 438
440	1 2 4 5 8 10 11 20 22 40 44 55 88 110 220 440
441	1 3 7 9 21 49 63 147 441
442	1 2 13 17 26 34 221 442
444	1 2 3 4 6 12 37 74 111 148 222 444
445	1 5 89 445
446	1 2 223 446
447	1 3 149 447
448	1 2 4 7 8 14 16 28 32 56 64 112 224 448
450	1 2 3 5 6 9 10 15 18 25 30 45 50 75 90 150 225 450
451	1 11 41 451
452	1 2 4 113 226 452
453	1 3 151 453
454	1 2 227 454
455	1 5 7 13 35 65 91 455
456	1 2 3 4 6 8 12 19 24 38 57 76 114 152 228 456
458	1 2 229 458
459	1 3 9 17 27 51 153 459
460	1 2 4 5 10 20 23 46 92 115 230 460
462	1 2 3 6 7 11 14 21 22 33 42 66 77 154 231 462
464	1 2 4 8 16 29 58 116 232 464
465	1 3 5 15 31 93 155 465
466	1 2 233 466
468	1 2 3 4 6 9 12 13 18 26 36 39 52 78 117 156 234 468
469	1 7 67 469
470	1 2 5 10 47 94 235 470
471	1 3 157 471
472	1 2 4 8 59 118 236 472
473	1 11 43 473
474	1 2 3 6 79 158 237 474
475	1 5 19 25 95 475
476	1 2 4 7 14 17 28 34 68 119 238 476
477	1 3 9 53 159 477
478	1 2 239 478
480	1 2 3 4 5 6 8 10 12 15 16 20 24 30 32 40 48 60 80 96 120 160 240 480
481	1 13 37 481
482	1 2 241 482
483	1 3 7 21 23 69 161 483
484	1 2 4 11 22 44 121 242 484
485	1 5 97 485
486	1 2 3 6 9 18 27 54 81 162 243 486
488	1 2 4 8 61 122 344 488
489	1 3 163 489
490	1 2 5 7 10 14 35 49 70 98 245 490
492	1 2 3 4 6 12 41 82 123 164 246 492
493	1 17 29 493
494	1 2 13 19 26 38 247 494
495	1 3 5 9 11 15 33 45 55 99 165 495
496	1 2 4 8 16 31 62 124 248 496
497	1 7 71 497
498	1 2 3 6 83 166 249 498
500	1 2 4 5 10 20 25 50 100 125 250 500
501	1 3 167 501
502	1 2 251 502

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
504	1 2 3 4 6 7 8 9 12 14 18 21 24 28 36 42 56 63 72 84 126 168 252 504
505	1 5 101 505
506	1 2 11 22 23 46 253 506
507	1 3 13 39 169 507
508	1 2 4 127 254 508
510	1 2 3 5 6 10 15 17 30 34 51 85 102 170 255 510
511	1 7 73 511
512	1 2 4 8 16 32 64 128 256 512
513	1 3 9 19 27 57 171 513
514	1 2 257 514
515	1 5 103 515
516	1 2 3 4 6 12 43 86 129 172 258 516
517	1 11 47 517
518	1 2 7 14 37 74 259 518
519	1 3 173 519
520	1 2 4 5 8 10 13 20 26 40 52 65 104 130 260 520
522	1 2 3 6 9 18 29 58 87 174 261 522
524	1 2 4 131 262 524
525	1 3 5 7 15 21 25 35 75 105 175 525
526	1 2 263 526
527	1 17 31 527
528	1 2 3 4 6 8 11 12 16 22 24 33 44 48 66 88 132 176 264 528
529	1 23 529
530	1 2 5 10 53 106 265 530
531	1 3 9 59 177 531
532	1 2 4 7 14 19 28 38 76 133 266 532
533	1 13 41 533
534	1 2 3 6 89 178 267 534
535	1 5 107 535
536	1 2 4 8 67 134 268 536
537	1 3 179 537
538	1 2 269 538
539	1 7 11 49 77 539
540	1 2 3 4 5 6 9 10 12 15 18 20 27 30 36 45 54 60 90 108 135 180 270 540
542	1 2 271 542
543	1 3 181 543
544	1 2 4 8 16 17 32 34 68 136 272 544
545	1 5 109 545
546	1 2 3 6 7 13 14 21 26 39 42 78 91 182 273 546
548	1 2 4 137 274 548
549	1 3 9 61 183 549
550	1 2 5 10 11 22 25 50 55 110 275 550
551	1 19 29 551
552	1 2 3 4 6 8 12 23 24 46 69 92 138 184 276 552
553	1 7 79 553
554	1 2 277 554
555	1 3 5 15 37 111 185 555
556	1 2 4 139 278 556
558	1 2 3 6 9 18 31 62 93 186 279 558
559	1 13 43 559
560	1 2 4 5 7 8 10 14 16 20 28 35 40 56 70 80 112 140 280 560
561	1 3 11 17 33 51 187 561
562	1 2 281 562
564	1 2 3 4 6 12 47 94 141 188 282 564
565	1 5 113 565
566	1 2 283 566
567	1 3 7 9 21 27 63 81 189 567
568	1 2 4 8 71 142 284 568
570	1 2 3 5 6 10 15 19 30 38 57 95 114 190 285 570
572	1 2 4 11 13 22 26 44 52 143 286 572
573	1 3 191 573
574	1 2 7 14 41 82 287 574
575	1 5 23 25 115 575
576	1 2 3 4 6 8 9 12 16 18 24 32 36 48 64 72 96 144 192 288 576
578	1 2 17 34 289 578
579	1 3 193 579
580	1 2 4 5 10 20 29 58 116 145 290 580
581	1 7 83 581
582	1 2 3 6 97 194 291 582
583	1 11 53 583
584	1 2 4 8 73 146 292 584
585	1 3 5 9 13 15 39 45 65 117 195 585
586	1 2 293 586

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
588	1 2 3 4 6 7 12 14 21 28 42 49 84 98 147 196 294 588
589	1 19 31 589
590	1 2 5 10 59 118 295 590
591	1 3 197 591
592	1 2 4 8 16 37 74 148 296 592
594	1 2 3 6 9 11 18 22 27 33 54 66 99 198 297 594
595	1 5 7 17 35 85 119 595
596	1 2 4 149 298 596
597	1 3 199 597
598	1 2 13 23 26 46 299 598
600	1 2 3 4 5 6 8 10 12 15 20 24 25 30 40 50 60 75 100 120 150 200 300 600
602	1 2 7 14 43 86 301 602
603	1 3 9 67 201 603
604	1 2 4 151 302 604
605	1 5 11 55 121 605
606	1 2 3 6 101 202 303 606
608	1 2 4 8 16 19 32 38 76 152 304 608
609	1 3 7 21 29 87 203 609
610	1 2 5 10 61 122 305 610
611	1 13 47 611
612	1 2 3 4 6 9 12 17 18 34 36 51 68 102 153 204 306 612
614	1 2 307 614
615	1 3 5 15 41 123 205 615
616	1 2 4 7 8 11 14 22 28 44 56 77 88 154 308 616
618	1 2 3 6 103 206 309 618
620	1 2 4 5 10 20 31 62 124 155 310 620
621	1 3 9 23 27 69 207 621
622	1 2 311 622
623	1 7 89 623
624	1 2 3 4 6 8 12 13 16 24 26 39 48 52 78 104 156 208 312 624
625	1 5 25 125 625
626	1 2 313 626
627	1 3 11 19 33 57 209 627
628	1 2 4 157 314 628
629	1 17 37 629

N	FACTORS
630	1 2 3 5 6 7 9 10 14 15 18 21 30 35 42 45 63 70 90 105 126 210 315 630
632	1 2 4 8 79 158 316 632
633	1 3 211 633
634	1 2 317 634
635	1 5 127 635
636	1 2 3 4 6 12 53 106 159 212 318 636
637	1 7 13 49 91 637
638	1 2 11 22 29 58 319 638
639	1 3 9 71 213 639
640	1 2 4 5 8 10 16 20 32 40 64 80 128 160 320 640
642	1 2 3 6 107 214 321 642
644	1 2 4 7 14 23 28 46 92 161 322 644
645	1 3 5 15 43 129 215 645
646	1 2 17 19 34 38 323 646
648	1 2 3 4 6 8 9 12 18 24 27 36 54 72 81 108 162 216 324 648
649	1 11 59 649
650	1 2 5 10 13 25 26 50 65 130 325 650
651	1 3 7 21 31 93 217 651
652	1 2 4 163 326 652
654	1 2 3 6 109 218 327 654
655	1 5 131 655
656	1 2 4 8 16 41 82 164 328 656
657	1 3 9 73 219 657
658	1 2 7 14 47 94 329 658
660	1 2 3 4 5 6 10 11 12 15 20 22 30 33 44 55 60 66 110 132 165 220 330 660
662	1 2 331 662
663	1 3 13 17 39 51 221 663
664	1 2 4 8 83 166 332 664
665	1 5 7 19 35 95 133 665
666	1 2 3 6 9 18 37 74 111 222 333 666
667	1 23 29 667
668	1 2 4 167 334 668
669	1 3 223 669
670	1 2 5 10 67 134 335 670
671	1 11 61 671
672	1 2 3 4 6 7 8 12 14 16 21 24 28 32 42 48 56 84 96 112 168 224 336 672

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
674	1 2 337 674
675	1 3 5 9 15 25 27 45 75 135 225 675
676	1 2 4 13 26 52 169 338 676
678	1 2 3 6 113 226 339 678
679	1 7 97 679
680	1 2 4 5 8 10 17 20 34 40 68 85 136 170 340 680
681	1 3 227 681
682	1 2 11 22 31 62 341 682
684	1 2 3 4 6 9 12 18 19 36 38 57 76 114 171 228 342 684
685	1 5 137 685
686	1 2 7 14 49 98 343 686
687	1 3 229 687
688	1 2 4 8 16 43 86 172 344 688
689	1 13 53 689
690	1 2 3 5 6 10 15 23 30 46 69 115 138 230 345 690
692	1 2 4 173 346 692
693	1 3 7 9 11 21 33 63 77 99 231 693
694	1 2 347 694
695	1 5 139 695
696	1 2 3 4 6 8 12 24 29 58 87 116 174 232 348 696
697	1 17 41 697
698	1 2 349 698
699	1 3 233 699
700	1 2 4 5 7 10 14 20 25 28 35 50 70 100 140 175 350 700
702	1 2 3 6 9 13 18 26 27 39 54 78 117 234 351 702
703	1 19 37 703
704	1 2 4 8 11 16 22 32 44 64 88 176 352 704
705	1 3 5 15 47 141 235 705
706	1 2 353 706
707	1 7 101 707
708	1 2 3 4 6 12 59 118 177 236 354 708
710	1 2 5 10 71 142 355 710
711	1 3 9 79 237 711
712	1 2 4 8 89 178 356 712
713	1 23 31 713
714	1 2 3 6 7 14 17 21 34 42 51 102 119 238 357 714
715	1 5 11 13 55 65 143 715
716	1 2 4 179 358 716
717	1 3 239 717
718	1 2 359 718
720	1 2 3 4 5 6 8 9 10 12 15 16 18 20 24 30 36 40 45 48 60 72 80 90 120 144 180 240 360 720
721	1 7 103 721
722	1 2 19 38 361 722
723	1 3 241 723
724	1 2 4 181 362 724
725	1 5 25 29 145 725
726	1 2 3 6 11 22 33 66 121 242 363 726
728	1 2 4 7 8 13 14 26 28 52 56 91 104 182 364 728
729	1 3 9 27 81 243 729
730	1 2 5 10 73 146 365 730
731	1 17 43 731
732	1 2 3 4 6 12 61 122 183 244 366 732
734	1 2 367 734
735	1 3 5 7 15 21 35 49 105 147 245 735
736	1 2 4 8 16 23 32 46 92 184 368 736
737	1 11 67 737
738	1 2 3 6 9 18 41 82 123 246 369 738
740	1 2 4 5 10 20 37 74 148 185 370 740
741	1 3 13 19 39 57 247 741
742	1 2 7 14 53 106 371 742
744	1 2 3 4 6 8 12 24 31 62 93 124 186 248 372 744
745	1 5 149 745
746	1 2 373 746
747	1 3 9 83 249 747
748	1 2 4 11 17 22 34 44 68 187 374 748
749	1 7 107 749
750	1 2 3 5 6 10 15 25 30 50 75 125 150 250 375 750
752	1 2 4 8 16 47 94 188 376 752
753	1 3 251 753

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
754	1 2 13 26 29 59 377 754
755	1 5 151 755
756	1 2 3 4 6 7 9 12 14 18 21 27 28 36 42 54 63 84 108 126 189 252 378 756
758	1 2 379 758
759	1 3 11 23 33 69 253 759
760	1 2 4 5 8 10 19 20 38 40 76 95 152 190 380 760
762	1 2 3 6 127 254 381 762
763	1 7 109 763
764	1 2 4 191 382 764
765	1 3 5 9 15 17 45 51 85 153 255 765
766	1 2 383 766
767	1 13 59 767
768	1 2 3 4 6 8 12 16 24 32 48 64 96 128 192 256 384 768
770	1 2 5 7 10 11 14 22 35 55 70 77 110 154 385 770
771	1 3 257 771
772	1 2 4 193 386 772
774	1 2 3 6 9 18 43 86 129 258 387 774
775	1 5 25 31 155 755
776	1 2 4 8 97 194 388 776
777	1 3 7 21 37 111 259 777
778	1 2 389 778
779	1 19 41 779
780	1 2 3 4 5 6 10 12 13 15 20 26 30 39 52 60 65 78 130 156 195 260 390 780
781	1 11 71 781
782	1 2 17 23 34 46 391 782
783	1 3 9 27 29 87 261 783
784	1 2 4 7 8 14 16 28 49 56 98 112 196 392 784
785	1 5 157 785
786	1 2 3 6 131 262 393 786
788	1 2 4 197 394 788
789	1 3 263 789
790	1 2 5 10 79 158 395 790
791	1 7 113 791
792	1 2 3 4 6 8 9 11 12 18 22 24 33 36 44 66 72 88 99 132 198 264 396 792
793	1 13 61 793
794	1 2 397 794
795	1 3 5 15 53 159 265 795
796	1 2 4 199 398 796
798	1 2 3 6 7 14 19 21 38 42 57 114 133 266 399 798
799	1 17 47 799
800	1 2 4 5 8 10 16 20 25 32 40 50 80 100 160 200 400 800
801	1 3 9 89 267 801
802	1 2 401 802
803	1 11 73 803
804	1 2 3 4 6 12 67 134 201 268 402 804
805	1 5 7 23 35 115 161 805
806	1 2 13 26 31 62 403 806
807	1 3 269 807
808	1 2 4 8 101 202 404 808
810	1 2 3 5 6 9 10 15 18 27 30 45 54 81 90 135 162 270 405 810
812	1 2 4 7 14 28 29 58 116 203 406 812
813	1 3 271 813
814	1 2 11 22 37 74 407 814
815	1 5 163 815
816	1 2 3 4 6 8 12 16 17 24 34 48 51 68 102 136 204 272 408 816
817	1 19 43 817
818	1 2 409 818
819	1 3 7 9 13 21 39 63 91 117 273 819
820	1 2 4 5 10 20 41 82 164 205 410 820
822	1 2 3 6 137 274 411 822
824	1 2 4 8 103 206 412 824
825	1 3 5 11 15 25 33 55 75 165 275 825
826	1 2 7 14 59 118 413 826
828	1 2 3 4 6 9 12 18 23 36 46 69 92 138 207 276 414 828
830	1 2 5 10 83 166 415 830
831	1 3 277 831
832	1 2 4 8 13 16 26 32 52 64 104 208 416 832
833	1 7 17 49 119 833
834	1 2 3 6 139 278 417 834
835	1 5 167 835
836	1 2 4 11 19 22 38 44 76 209 418 836
837	1 3 9 27 31 93 279 837
838	1 2 419 838

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
840	1 2 3 4 5 6 7 8 10 12 14 15 20 21 24 28 30 35 40 42 56 60 70 84 105 120 140 168 210 280 420 840
841	1 29 841
842	1 2 421 842
843	1 3 281 843
844	1 2 4 211 422 844
845	1 5 13 65 169 845
846	1 2 3 6 9 18 47 94 141 282 423 846
847	1 7 11 77 121 847
848	1 2 4 8 16 53 106 212 424 848
849	1 3 283 849
850	1 2 5 10 17 25 34 50 85 170 425 850
851	1 23 37 851
852	1 2 3 4 6 12 71 142 213 284 426 852
854	1 2 7 14 61 122 427 854
855	1 3 5 9 15 19 45 57 95 171 285 855
856	1 2 4 8 107 214 428 856
858	1 2 3 6 11 13 22 26 33 39 66 78 143 286 429 858
860	1 2 4 5 10 20 43 86 172 215 430 860
861	1 3 7 21 41 123 287 861
862	1 2 431 862
864	1 2 3 4 6 8 9 12 16 18 24 27 32 36 48 54 72 96 108 144 216 288 432 864
865	1 5 173 865
866	1 2 433 866
867	1 3 17 51 289 867
868	1 2 4 7 14 28 31 62 124 217 434 868
869	1 11 79 869
870	1 2 3 5 6 10 15 29 30 58 87 145 174 290 435 870
871	1 13 67 871
872	1 2 4 8 109 218 436 872
873	1 3 9 97 291 873
874	1 2 19 23 38 46 437 874
875	1 5 7 25 35 125 175 875
876	1 2 3 4 6 12 73 146 219 292 438 876
878	1 2 439 878
879	1 3 293 879
880	1 2 4 5 8 10 11 16 20 22 40 44 55 80 88 110 176 220 440 880
882	1 2 3 6 7 9 14 18 21 42 49 63 98 126 147 294 441 882
884	1 2 4 13 17 26 34 52 68 221 442 884
885	1 3 5 15 59 177 295 885
886	1 2 443 886
888	1 2 3 4 6 8 12 24 37 74 111 148 222 296 444 888
889	1 7 127 889
890	1 2 5 10 89 178 445 890
891	1 3 9 11 27 33 81 99 297 891
892	1 2 4 223 446 892
893	1 19 47 893
894	1 2 3 6 149 298 447 894
895	1 5 179 895
896	1 2 4 7 8 14 16 28 32 56 64 112 128 224 448 896
897	1 3 13 23 39 69 299 897
898	1 2 449 898
899	1 29 31 899
900	1 2 3 4 5 6 9 10 12 15 18 20 25 30 36 45 50 60 75 90 100 150 180 225 300 450 900
901	1 17 53 901
902	1 2 11 22 41 82 451 902
903	1 3 7 21 43 129 301 903
904	1 2 4 8 113 226 452 904
905	1 5 181 905
906	1 2 3 6 151 302 453 906
908	1 2 4 227 454 908
909	1 3 9 101 303 909
910	1 2 5 7 10 13 14 26 35 65 70 91 130 182 455 910
912	1 2 3 4 6 8 12 16 19 24 38 48 57 76 114 152 228 304 456 912
913	1 11 83 913
914	1 2 457 914
915	1 3 5 15 61 183 305 915
916	1 2 4 229 458 916
917	1 7 131 917
918	1 2 3 6 9 17 18 27 34 51 54 102 153 306 459 918

FACTORS OF COMPOSITE INTEGERS

N	FACTORS
920	1 2 4 5 8 10 20 23 40 46 92 115 184 230 460 920
921	1 3 307 921
922	1 2 461 922
923	1 13 71 923
924	1 2 3 4 6 7 11 12 14 21 22 28 33 42 44 66 77 84 132 154 231 308 462 924
925	1 5 25 37 185 925
926	1 2 463 926
927	1 3 9 103 309 927
928	1 2 4 8 16 29 32 58 116 232 464 928
930	1 2 3 5 6 10 15 30 31 62 93 155 186 310 465 930
931	1 7 19 49 133 931
932	1 2 4 233 466 932
933	1 3 311 933
934	1 2 467 934
935	1 5 11 17 55 85 187 935
936	1 2 3 4 6 8 9 12 13 18 24 26 36 39 52 72 78 104 117 156 234 312 468 936
938	1 2 7 14 67 134 469 938
939	1 3 313 939
940	1 2 4 5 10 20 47 94 188 235 470 940
942	1 2 3 6 157 314 471 942
943	1 23 41 943
944	1 2 4 8 16 59 118 236 472 944
945	1 3 5 7 9 15 21 27 35 45 63 105 135 189 315 945
946	1 2 11 22 43 86 473 946
948	1 2 3 4 6 12 79 158 237 316 474 948
949	1 13 73 949
950	1 2 5 10 19 25 38 50 95 190 475 950
951	1 3 317 951
952	1 2 4 7 8 14 17 28 34 56 68 119 136 238 476 952
954	1 2 3 6 9 18 53 106 159 318 477 954
955	1 5 191 955
956	1 2 4 239 478 956
957	1 3 11 29 33 87 319 957
958	1 2 479 958
959	1 7 137 959
960	1 2 3 4 5 6 8 10 12 15 16 20 24 30 32 40 48 60 64 80 96 120 160 192 240 320 480 960
961	1 31 961
962	1 2 13 26 37 74 481 962
963	1 3 9 107 321 963
964	1 2 4 241 482 964
965	1 5 193 965
966	1 2 3 6 7 14 21 23 42 46 69 138 161 322 483 966
968	1 2 4 8 11 22 44 88 121 242 484 968
969	1 3 17 19 51 57 323 969
970	1 2 5 10 97 194 485 970
972	1 2 3 4 6 9 12 18 27 36 54 81 108 162 243 324 486 972
973	1 7 139 973
974	1 2 487 974
975	1 3 5 13 15 25 39 65 75 195 325 975
976	1 2 4 8 16 61 122 244 488 976
978	1 2 3 6 163 326 489 978
979	1 11 89 979
980	1 2 4 5 7 10 14 20 28 35 49 70 98 140 196 245 490 980
981	1 3 9 109 327 981
982	1 2 491 982
984	1 2 3 4 6 8 12 24 41 82 123 164 246 328 492 984
985	1 5 197 985
986	1 2 17 29 34 58 493 986
987	1 3 7 21 47 141 329 987
988	1 2 4 13 19 26 38 52 76 247 494 988
989	1 23 43 989
990	1 2 3 5 6 9 10 11 15 18 22 30 33 45 55 66 90 99 110 165 198 330 495 990
992	1 2 4 8 16 31 32 62 124 248 496 992
993	1 3 331 993
994	1 2 7 14 71 142 497 994
995	1 5 199 995
996	1 2 3 4 6 12 83 166 249 332 498 996
998	1 2 499 998
999	1 3 9 27 37 111 333 999
1000	1 2 4 5 8 10 20 25 40 50 100 125 200 250 500 1000

TABLE OF GAUSSIAN PRIMES

Gaussian primes are numbers of the form a +bi where a and b are integers and the quantity a + bi may not be represented as the product of other such quantities apart from the units $\pm$ 1, $\pm$ i.

The quantities formed by multiplying a+bi by the units are known as the associates of a +bi.

All Gaussian primes are included among the associates of the following:

(1) The divisors 1+i and 1-i of 2.
(2) The rational primes congruent to 3 modulo 4.
(3) The nonassociated conjugate prime divisors a+bi and a-bi of the rational primes congruent to 1 modulo 4.

In this table the Gaussian primes are listed implicitly by giving a pair of integers such as (2,3) or (0,3). The former includes the primes 2+3i and 2-3i and their associates, namely, 2+3i, -2-3i, -3+2i, 3-2i; 2-3i, -2+3i, -3-2i, 3+2i. The latter includes 3, -3, 3i, -3i.

The norm is $a^2 + b^2$. In this table the Gaussian primes are listed in order according to the norm.

TABLE OF GAUSSIAN PRIMES

NORM	(a,b)	NORM	(a,b)	NORM	(a,b)
2	(1,1)	461	(19,10)	1109	(22,25)
5	(1,2)	509	(5,22)	1117	(21,26)
9	(0,3)	521	(11,20)	1129	(20,27)
13	(2,3)	529	(0,23)	1153	(8,33)
17	(1,4)	541	(10,21)	1181	(5,34)
29	(2,5)	557	(14,19)	1193	(13,32)
37	(1,6)	569	(13,20)	1201	(24,25)
41	(4,5)	577	(1,24)	1213	(22,27)
49	(0,7)	593	(8,23)	1217	(16,31)
53	(2,7)	601	(5,24)	1229	(2,35)
61	(5,6)	613	(17,18)	1237	(9,34)
73	(3,8)	617	(16,19)	1249	(15,32)
89	(5,8)	641	(4,25)	1277	(11,34)
97	(4,9)	653	(13,22)	1289	(8,35)
101	(1,10)	661	(6,25)	1297	(1,36)
109	(3,10)	673	(12,23)	1301	(25,26)
113	(7,8)	677	(1,26)	1321	(5,36)
121	(0,11)	701	(5,26)	1361	(20,31)
137	(4,11)	709	(15,22)	1373	(2,37)
149	(7,10)	733	(2,27)	1381	(15,34)
157	(6,11)	757	(9,26)	1409	(25,28)
173	(2,13)	761	(19,20)	1429	(23,30)
181	(9,10)	769	(12,25)	1433	(8,37)
193	(7,12)	773	(17,22)	1453	(3,38)
197	(1,14)	797	(11,26)	1481	(16,35)
229	(2,15)	809	(5,28)	1489	(20,33)
233	(8,13)	821	(14,25)	1493	(7,38)
241	(4,15)	829	(10,27)	1549	(18,35)
257	(1,16)	853	(18,23)	1553	(23,32)
269	(10,13)	857	(4,29)	1597	(21,34)
277	(9,14)	877	(6,29)	1601	(1,40)
281	(5,16)	881	(16,25)	1609	(3,40)
293	(2,17)	929	(20,23)	1613	(13,38)
313	(12,13)	937	(19,24)	1621	(10,39)
317	(11,14)	941	(10,29)	1637	(26,31)
337	(9,16)	953	(13,28)	1657	(19,36)
349	(5,18)	961	(0,31)	1669	(15,38)
353	(8,17)	977	(4,31)	1693	(18,37)
361	(0,19)	997	(6,31)	1697	(4,41)
373	(7,18)	1009	(15,28)	1709	(22,35)
389	(10,17)	1013	(22,23)	1721	(11,40)
397	(6,19)	1021	(11,30)	1733	(17,38)
401	(1,20)	1033	(3,32)	1741	(29,30)
409	(3,20)	1049	(5,32)	1753	(27,32)
421	(14,15)	1061	(10,31)	1777	(16,39)
433	(12,17)	1069	(13,30)	1789	(5,42)
449	(20,7)	1093	(2,33)	1801	(24,35)
457	(4,21)	1097	(16,29)	1849	(0,43)

TABLE OF GAUSSIAN PRIMES

NORM	(a,b)	NORM	(a,b)	NORM	(a,b)
1861	(30,31)	2593	(17,48)	3361	(15,56)
1873	(28,33)	2609	(20,47)	3373	(3,58)
1877	(14,41)	2617	(4,51)	3389	(5,58)
1889	(17,40)	2621	(11,50)	3413	(7,58)
1901	(26,35)	2633	(28,43)	3433	(27,52)
1913	(8,43)	2657	(16,49)	3449	(40,43)
1933	(13,42)	2677	(34,39)	3457	(39,44)
1949	(10,43)	2689	(33,40)	3461	(31,50)
1973	(23,38)	2693	(22,47)	3469	(38,45)
1993	(12,43)	2713	(3,52)	3481	(0,59)
1997	(29,34)	2729	(5,52)	3517	(6,59)
2017	(9,44)	2741	(25,46)	3529	(35,48)
2029	(2,45)	2749	(30,43)	3533	(13,58)
2053	(17,42)	2753	(7,52)	3541	(25,54)
2069	(25,38)	2777	(29,44)	3557	(34,49)
2081	(20,41)	2789	(17,50)	3581	(10,59)
2089	(8,45)	2797	(14,51)	3593	(28,53)
2113	(32,33)	2801	(20,49)	3613	(42,43)
2129	(23,40)	2833	(23,48)	3617	(41,44)
2137	(29,36)	2837	(34,41)	3637	(39,46)
2141	(5,46)	2857	(16,51)	3673	(37,48)
2153	(28,37)	2861	(19,50)	3677	(14,59)
2161	(15,44)	2897	(31,44)	3697	(36,49)
2209	(0,47)	2909	(10,53)	3701	(26,55)
2213	(2,47)	2917	(1,54)	3709	(30,53)
2221	(14,45)	2953	(12,53)	3733	(22,57)
2237	(11,46)	2957	(29,46)	3761	(25,56)
2269	(30,37)	2969	(37,40)	3769	(13,60)
2273	(8,47)	3001	(20,51)	3793	(33,52)
2281	(16,45)	3037	(11,54)	3797	(41,46)
2293	(23,42)	3041	(4,55)	3821	(10,61)
2297	(19,44)	3049	(32,45)	3833	(32,53)
2309	(10,47)	3061	(6,55)	3853	(3,62)
2333	(22,43)	3089	(8,55)	3877	(31,54)
2341	(15,46)	3109	(30,47)	3881	(20,59)
2357	(26,41)	3121	(39,40)	3889	(17,60)
2377	(21,44)	3137	(1,56)	3917	(14,61)
2381	(34,35)	3169	(12,55)	3929	(35,52)
2389	(25,42)	3181	(34,45)	3989	(25,58)
2393	(32,37)	3209	(20,53)	4001	(40,49)
2417	(4,49)	3217	(9,56)	4013	(13,62)
2437	(6,49)	3221	(14,55)	4021	(39,50)
2441	(29,40)	3229	(27,50)	4049	(32,55)
2473	(13,48)	3253	(2,57)	4057	(24,59)
2477	(19,46)	3257	(11,56)	4073	(37,52)
2521	(35,36)	3301	(30,49)	4093	(27,58)
2549	(7,50)	3313	(8,57)	4129	(23,60)
2557	(21,46)	3329	(25,52)	4133	(17,62)

TABLE OF GAUSSIAN PRIMES

NORM	(a,b)	NORM	(a,b)	NORM	(a,b)
4153	(43,48)	4957	(14,69)	5801	(5,76)
4157	(26,59)	4969	(37,60)	5813	(22,73)
4177	(9,64)	4973	(22,67)	5821	(14,75)
4201	(40,51)	4993	(32,63)	5849	(35,68)
4217	(11,64)	5009	(28,65)	5857	(9,76)
4229	(2,65)	5021	(11,70)	5861	(31,70)
4241	(4,65)	5041	(0,71)	5869	(45,62)
4253	(38,53)	5077	(6,71)	5881	(16,75)
4261	(6,65)	5081	(40,59)	5897	(11,76)
4273	(32,57)	5101	(50,51)	5953	(52,57)
4289	(8,65)	5113	(48,53)	5981	(50,59)
4297	(24,61)	5153	(23,68)	6029	(10,77)
4337	(44,49)	5189	(17,70)	6037	(41,66)
4349	(43,50)	5197	(29,66)	6053	(47,62)
4357	(1,66)	5209	(5,72)	6073	(12,77)
4373	(23,62)	5233	(7,72)	6089	(40,67)
4397	(26,61)	5237	(14,71)	6101	(25,74)
4409	(40,53)	5261	(19,70)	6113	(28,73)
4421	(14,65)	5273	(28,67)	6121	(45,64)
4441	(29,60)	5281	(41,60)	6133	(7,78)
4457	(19,64)	5297	(16,71)	6173	(53,58)
4481	(16,65)	5309	(50,53)	6197	(34,71)
4489	(0,67)	5333	(2,73)	6217	(21,76)
4493	(2,67)	5381	(34,65)	6221	(50,61)
4513	(47,48)	5393	(8,73)	6229	(30,73)
4517	(46,49)	5413	(38,63)	6241	(0,79)
4549	(18,65)	5417	(44,59)	6257	(4,79)
4561	(31,60)	5437	(26,69)	6269	(37,70)
4597	(41,54)	5441	(20,71)	6277	(6,79)
4621	(30,61)	5449	(43,60)	6301	(26,75)
4637	(34,59)	5477	(1,74)	6317	(29,74)
4649	(5,68)	5501	(5,74)	6329	(20,77)
4657	(39,56)	5521	(36,65)	6337	(36,71)
4673	(7,68)	5557	(9,74)	6353	(32,73)
4721	(25,64)	5569	(40,63)	6361	(40,69)
4729	(45,52)	5573	(47,58)	6373	(17,78)
4733	(37,58)	5581	(35,66)	6389	(55,58)
4789	(42,55)	5641	(4,75)	6397	(54,59)
4793	(13,68)	5653	(18,73)	6421	(39,70)
4801	(24,65)	5657	(44,61)	6449	(7,80)
4813	(18,67)	5669	(38,65)	6469	(50,63)
4817	(41,56)	5689	(8,75)	6473	(43,68)
4861	(10,69)	5693	(43,62)	6481	(9,80)
4877	(34,61)	5701	(15,74)	6521	(11,80)
4889	(20,67)	5717	(26,71)	6529	(48,65)
4909	(3,70)	5737	(51,56)	6553	(37,72)
4933	(33,62)	5741	(29,70)	6569	(13,80)
4937	(29,64)	5749	(50,57)	6577	(4,81)

TABLE OF GAUSSIAN PRIMES

NORM	(a,b)	NORM	(a,b)	NORM	(a,b)
6581	(41,70)	7481	(16,85)	8273	(23,88)
6637	(54,61)	7489	(33,80)	8293	(47,78)
6653	(53,62)	7517	(11,86)	8297	(4,91)
6661	(10,81)	7529	(40,77)	8317	(6,91)
6673	(52,63)	7537	(36,79)	8329	(52,75)
6689	(17,80)	7541	(50,71)	8353	(28,87)
6701	(35,74)	7549	(18,85)	8369	(25,88)
6709	(25,78)	7561	(44,75)	8377	(51,76)
6733	(3,82)	7573	(2,87)	8389	(17,90)
6737	(31,76)	7577	(59,64)	8429	(50,77)
6761	(19,80)	7589	(58,65)	8461	(19,90)
6781	(34,75)	7621	(15,86)	8501	(55,74)
6793	(48,67)	7649	(55,68)	8513	(7,92)
6829	(30,77)	7669	(10,87)	8521	(36,85)
6833	(47,68)	7673	(28,83)	8537	(16,91)
6841	(21,80)	7681	(25,84)	8573	(43,82)
6857	(56,61)	7717	(34,81)	8581	(65,66)
6869	(55,62)	7741	(46,75)	8597	(26,89)
6889	(0,83)	7753	(3,88)	8609	(47,80)
6917	(26,79)	7757	(19,86)	8629	(23,90)
6949	(15,82)	7789	(30,83)	8641	(60,71)
6961	(20,81)	7793	(7,88)	8669	(38,85)
6977	(44,71)	7817	(61,64)	8677	(46,81)
6997	(39,74)	7829	(50,73)	8681	(20,91)
7001	(35,76)	7841	(40,79)	8689	(15,92)
7013	(17,82)	7853	(58,67)	8693	(58,73)
7057	(1,84)	7873	(57,68)	8713	(8,93)
7069	(38,75)	7877	(49,74)	8737	(41,84)
7109	(47,70)	7901	(26,85)	8741	(50,79)
7121	(55,64)	7933	(43,78)	8753	(17,92)
7129	(27,80)	7937	(4,89)	8761	(56,75)
7177	(11,84)	7949	(35,82)	8821	(30,89)
7193	(52,67)	7993	(53,72)	8837	(1,94)
7213	(18,83)	8009	(28,85)	8849	(65,68)
7229	(2,85)	8017	(31,84)	8861	(5,94)
7237	(26,81)	8053	(22,87)	8893	(53,78)
7253	(23,82)	8069	(62,65)	8929	(60,73)
7297	(39,76)	8081	(41,80)	8933	(47,82)
7309	(35,78)	8089	(60,67)	8941	(29,90)
7321	(60,61)	8093	(37,82)	8969	(35,88)
7333	(58,63)	8101	(1,90)	9001	(51,80)
7349	(25,82)	8117	(14,89)	9013	(38,87)
7369	(12,85)	8161	(40,81)	9029	(2,95)
7393	(47,72)	8209	(55,72)	9041	(4,95)
7417	(19,84)	8221	(11,90)	9049	(20,93)
7433	(53,68)	8233	(48,77)	9109	(55,78)
7457	(41,76)	8237	(29,86)	9133	(22,93)
7477	(9,86)	8269	(13,90)	9137	(64,71)

TABLE OF GAUSSIAN PRIMES

NORM	(a,b)
9157	(54,79)
9161	(44,85)
9173	(62,73)
9181	(30,91)
9209	(53,80)
9221	(14,95)
9241	(5,96)
9257	(59,76)
9277	(21,94)
9281	(16,95)
9293	(58,77)
9337	(11,96)
9341	(46,85)
9349	(18,95)
9377	(56,79)
9397	(66,71)
9413	(2,97)
9421	(45,86)
9433	(28,93)
9437	(34,91)
9461	(25,94)
9473	(8,97)
9497	(61,76)
9521	(40,89)
9533	(53,82)
9601	(24,95)
9613	(3,98)
9629	(5,98)
9649	(57,80)
9661	(69,70)
9677	(29,94)
9689	(35,92)
9697	(56,81)
9721	(64,75)
9733	(18,97)
9749	(55,82)
9769	(45,88)
9781	(41,90)
9817	(4,99)
9829	(15,98)
9833	(37,92)
9857	(44,89)
9901	(10,99)
9929	(52,85)
9941	(70,71)
9949	(43,90)
9973	(57,82)

NUMBER OF DIVISORS OF n

This table gives the number of divisors, $\tau(n)$, and the sum of this quantity to a given n.

n	$\tau(n)$	Sum	n	$\tau(n)$	Sum	n	$\tau(n)$	Sum
1	1	1	51	4	211	101	2	484
2	2	3	52	6	217	102	8	492
3	2	5	53	2	219	103	2	494
4	3	8	54	8	227	104	8	502
5	2	10	55	4	231	105	8	510
6	4	14	56	8	239	106	4	514
7	2	16	57	4	243	107	2	516
8	4	20	58	4	247	108	12	528
9	3	23	59	2	249	109	2	530
10	4	27	60	12	261	110	8	538
11	2	29	61	2	263	111	4	542
12	6	35	62	4	267	112	10	552
13	2	37	63	6	273	113	2	554
14	4	41	64	7	280	114	8	562
15	4	45	65	4	284	115	4	566
16	5	50	66	8	292	116	6	572
17	2	52	67	2	294	117	6	578
18	6	58	68	6	300	118	4	582
19	2	60	69	4	304	119	4	586
20	6	66	70	8	312	120	16	602
21	4	70	71	2	314	121	3	605
22	4	74	72	12	326	122	4	609
23	2	76	73	2	328	123	4	613
24	8	84	74	4	332	124	6	619
25	3	87	75	6	338	125	4	623
26	4	91	76	6	344	126	12	635
27	4	95	77	4	348	127	2	637
28	6	101	78	8	356	128	8	645
29	2	103	79	2	358	129	4	649
30	8	111	80	10	368	130	8	657
31	2	113	81	5	373	131	2	659
32	6	119	82	4	377	132	12	671
33	4	123	83	2	379	133	4	675
34	4	127	84	12	391	134	4	679
35	4	131	85	4	395	135	8	687
36	9	140	86	4	399	136	8	695
37	2	142	87	4	403	137	2	697
38	4	146	88	8	411	138	8	705
39	4	150	89	2	413	139	2	707
40	8	158	90	12	425	140	12	719
41	2	160	91	4	429	141	4	723
42	8	168	92	6	435	142	4	727
43	2	170	93	4	439	143	4	731
44	6	176	94	4	443	144	15	746
45	6	182	95	4	447	145	4	750
46	4	186	96	12	459	146	4	754
47	2	188	97	2	461	147	6	760
48	10	198	98	6	467	148	6	766
49	3	201	99	6	473	149	2	768
50	6	207	100	9	482	150	12	780

NUMBER OF DIVISORS OF n

n	τ(n)	Sum	n	τ(n)	Sum	n	τ(n)	Sum
151	2	782	201	4	1102	251	2	1423
152	8	790	202	4	1106	252	18	1441
153	6	796	203	4	1110	253	4	1445
154	8	804	204	12	1122	254	4	1449
155	4	808	205	4	1126	255	8	1457
156	12	820	206	4	1130	256	9	1466
157	2	822	207	6	1136	257	2	1468
158	4	826	208	10	1146	258	8	1476
159	4	830	209	4	1150	259	4	1480
160	12	842	210	16	1166	260	12	1492
161	4	846	211	2	1168	261	6	1498
162	10	856	212	6	1174	262	4	1502
163	2	858	213	4	1178	263	2	1504
164	6	864	214	4	1182	264	16	1520
165	8	872	215	4	1186	265	4	1524
166	4	876	216	16	1202	266	8	1532
167	2	878	217	4	1206	267	4	1536
168	16	894	218	4	1210	268	6	1542
169	3	897	219	4	1214	269	2	1544
170	8	905	220	12	1226	270	16	1560
171	6	911	221	4	1230	271	2	1562
162	6	917	222	8	1238	272	10	1572
173	2	919	223	2	1240	273	8	1580
174	8	927	224	12	1252	274	4	1584
175	6	933	225	9	1261	275	6	1590
176	10	943	226	4	1265	276	12	1602
177	4	947	227	2	1267	277	2	1604
178	4	951	228	12	1279	278	4	1608
179	2	953	229	2	1281	279	6	1614
180	18	971	230	8	1289	280	16	1630
181	2	973	231	8	1297	281	2	1632
182	8	981	232	8	1305	282	8	1640
183	4	985	233	2	1307	283	2	1642
184	8	993	234	12	1319	284	6	1648
185	4	997	235	4	1323	285	8	1656
186	8	1005	236	6	1329	286	8	1664
187	4	1009	237	4	1333	287	4	1668
188	6	1015	238	8	1341	288	18	1686
189	8	1023	239	2	1343	289	3	1689
190	8	1031	240	20	1363	290	8	1697
191	2	1033	241	2	1365	291	4	1701
192	14	1047	242	6	1371	292	6	1707
193	2	1049	243	6	1377	293	2	1709
194	4	1053	244	6	1383	294	12	1721
195	8	1061	245	6	1389	295	4	1725
196	9	1070	246	8	1397	296	8	1733
197	2	1072	247	4	1401	297	8	1741
198	12	1084	248	8	1409	298	4	1745
199	2	1086	249	4	1413	299	4	1749
200	12	1098	250	8	1421	300	18	1767

NUMBER OF DIVISORS OF n

n	τ(n)	Sum	n	τ(n)	Sum	n	τ(n)	Sum
301	4	1771	351	8	2116	401	2	2470
302	4	1775	352	12	2128	402	8	2478
303	4	1779	353	2	2130	403	4	2482
304	10	1789	354	8	2138	404	6	2488
305	4	1793	355	4	2142	405	10	2498
306	12	1805	356	6	2148	406	8	2506
307	2	1807	357	8	2156	407	4	2510
308	12	1819	358	4	2160	408	16	2526
309	4	1823	359	2	2162	409	2	2528
310	8	1831	360	24	2186	410	8	2536
311	2	1833	361	3	2189	411	4	2540
312	16	1849	362	4	2193	412	6	2546
313	2	1851	363	6	2199	413	4	2550
314	4	1855	364	12	2211	414	12	2562
315	12	1867	365	4	2215	415	4	2566
316	6	1873	366	8	2223	416	12	2578
317	2	1875	367	2	2225	417	4	2582
318	8	1883	368	10	2235	418	8	2590
319	4	1887	369	6	2241	419	2	2592
320	14	1901	370	8	2249	420	24	2616
321	4	1905	371	4	2253	421	2	2618
322	8	1913	372	12	2265	422	4	2622
323	4	1917	373	2	2267	423	6	2628
324	15	1932	374	8	2275	424	8	2636
325	6	1938	375	8	2283	425	6	2642
326	4	1942	376	8	2291	426	8	2650
327	4	1946	377	4	2295	427	4	2654
328	8	1954	378	16	2311	428	6	2660
329	4	1958	379	2	2313	429	8	2668
330	16	1974	380	12	2325	430	8	2676
331	2	1976	381	4	2329	431	2	2678
332	6	1982	382	4	2333	432	20	2698
333	6	1988	383	2	2335	433	2	2700
334	4	1992	384	16	2351	434	8	2708
335	4	1996	385	8	2359	435	8	2716
336	20	2016	386	4	2363	436	6	2722
337	2	2018	387	6	2369	437	4	2726
338	6	2024	388	6	2375	438	8	2734
339	4	2028	389	2	2377	439	2	2736
340	12	2040	390	16	2393	440	16	2752
341	4	2044	391	4	2397	441	9	2761
342	12	2056	392	12	2409	442	8	2769
343	4	2060	393	4	2413	443	2	2771
344	8	2068	394	4	2417	444	12	2783
345	8	2076	395	4	2421	445	4	2787
346	4	2080	396	18	2439	446	4	2791
347	2	2082	397	2	2441	447	4	2795
348	12	2094	398	4	2445	448	14	2809
349	2	2096	399	8	2453	449	2	2811
350	12	2108	400	15	2468	450	18	2829

NUMBER OF DIVISORS OF n

n	τ(n)	Sum	n	τ(n)	Sum	n	τ(n)	Sum
451	4	2833	501	4	3194	551	4	3565
452	6	2839	502	4	3198	552	16	3581
453	4	2843	503	2	3200	553	4	3585
454	4	2847	504	24	3224	554	4	3589
455	8	2855	505	4	3228	555	8	3597
456	16	2871	506	8	3236	556	6	3603
457	2	2873	507	6	3242	557	2	3605
458	4	2877	508	6	3248	558	12	3617
459	8	2885	509	2	3250	559	4	3621
460	12	2897	510	16	3266	560	20	3641
461	2	2899	511	4	3270	561	8	3649
462	16	2915	512	10	3280	562	4	3653
463	2	2917	513	8	3288	563	2	3655
464	10	2927	514	4	3292	564	12	3667
465	8	2935	515	4	3296	565	4	3671
466	4	2939	516	12	3308	566	4	3675
467	2	2941	517	4	3312	567	10	3685
468	18	2959	518	8	3320	568	8	3693
469	4	2963	519	4	3324	569	2	3695
470	8	2971	520	16	3340	570	16	3711
471	4	2975	521	2	3342	571	2	3713
472	8	2983	522	12	3354	572	12	3725
473	4	2987	523	2	3356	573	4	3729
474	8	2995	524	6	3362	574	8	3737
475	6	3001	525	12	3374	575	6	3743
476	12	3013	526	4	3378	576	21	3764
477	6	3019	527	4	3382	577	2	3766
478	4	3023	528	20	3402	578	6	3772
479	2	3025	529	3	3405	579	4	3776
480	24	3049	530	8	3413	580	12	3788
481	4	3053	531	6	3419	581	4	3792
482	4	3057	532	12	3431	582	8	3800
483	8	3065	533	4	3435	583	4	3804
484	9	3074	534	8	3443	584	8	3812
485	4	3078	535	4	3447	585	12	3824
486	12	3090	536	8	3455	586	4	3828
487	2	3092	537	4	3459	587	2	3830
488	8	3100	538	4	3463	588	18	3848
489	4	3104	539	6	3469	589	4	3852
490	12	3116	540	24	3493	590	8	3860
491	2	3118	541	2	3495	591	4	3864
492	12	3130	542	4	3499	592	10	3874
493	4	3134	543	4	3503	593	2	3876
494	8	3142	544	12	3515	594	16	3892
495	12	3154	545	4	3519	595	8	3900
496	10	3164	546	16	3535	596	6	3906
497	4	3168	547	2	3537	597	4	3910
498	8	3176	548	6	3543	598	8	3918
499	2	3178	549	6	3549	599	2	3920
500	12	3190	550	12	3561	600	24	3944

NUMBER OF DIVISORS OF n

n	τ(n)	Sum	n	τ(n)	Sum	n	τ(n)	Sum
601	2	3946	651	8	4329	701	2	4702
602	8	3954	652	6	4335	702	16	4718
603	6	3960	653	2	4337	703	4	4722
604	6	3966	654	8	4345	704	14	4736
605	6	3972	655	4	4349	705	8	4744
606	8	3980	656	10	4359	706	4	4748
607	2	3982	647	6	4365	707	4	4752
608	12	3994	658	8	4373	708	12	4764
609	8	4002	659	2	4375	709	2	4766
610	8	4010	660	24	4399	710	8	4774
611	4	4014	661	2	4401	711	6	4780
612	18	4032	662	4	4405	712	8	4788
613	2	4034	663	8	4413	713	4	4792
614	4	4038	664	8	4421	714	16	4808
615	8	4046	665	8	4429	715	8	4816
616	16	4062	666	12	4441	716	6	4822
617	2	4064	667	4	4445	717	4	4826
618	8	4072	668	6	4451	718	4	4830
619	2	4074	669	4	4455	719	2	4832
620	12	4086	670	8	4463	720	30	4862
621	8	4094	671	4	4467	721	4	4866
622	4	4098	672	24	4491	722	6	4872
623	4	4102	673	2	4493	723	4	4876
624	20	4122	674	4	4497	724	6	4882
625	5	4127	675	12	4509	725	6	4888
626	4	4131	676	9	4518	726	12	4900
627	8	4139	677	2	4520	727	2	4902
628	6	4145	678	8	4528	728	16	4918
629	4	4149	679	4	4532	729	7	4925
630	24	4173	680	16	4548	730	8	4933
631	2	4175	681	4	4552	731	4	4937
632	8	4183	682	8	4560	732	12	4949
633	4	4187	683	2	4562	733	2	4951
634	4	4191	684	18	4580	734	4	4955
635	4	4195	685	4	4584	735	12	4967
636	12	4207	686	8	4592	736	12	4979
637	6	4213	687	4	4596	737	4	4983
638	8	4221	688	10	4606	738	12	4995
639	6	4227	689	4	4610	739	2	4997
640	16	4243	690	16	4626	740	12	5009
641	2	4245	691	2	4628	741	8	5017
642	8	4253	692	6	4634	742	8	5025
643	2	4255	693	12	4646	743	2	5027
644	12	4267	694	4	4650	744	16	5043
645	8	4275	695	4	4654	745	4	5047
646	8	4283	696	16	4670	746	4	5051
647	2	4285	697	4	4674	747	6	5057
648	20	4305	698	4	4678	748	12	5069
649	4	4309	699	4	4682	749	4	5073
650	12	4321	700	18	4700	750	16	5089

NUMBER OF DIVISORS OF n

n	τ(n)	Sum	n	τ(n)	Sum	n	τ(n)	Sum
751	2	5091	801	6	5488	851	4	5875
752	10	5101	802	4	5492	852	12	5887
753	4	5105	803	4	5496	853	2	5889
754	8	5113	804	12	5508	854	8	5897
755	4	5117	805	8	5516	855	12	5909
756	24	5141	806	8	5524	856	8	5917
757	2	5143	807	4	5528	857	2	5919
758	4	5147	808	8	5536	858	16	5935
759	8	5155	809	2	5538	859	2	5937
760	16	5171	810	20	5558	860	12	5949
761	2	5173	811	2	5560	861	8	5957
762	8	5181	812	12	5572	862	4	5961
763	4	5185	813	4	5576	863	2	5963
764	6	5191	814	8	5584	864	24	5987
765	12	5203	815	4	5588	865	4	5991
766	4	5207	816	20	5608	866	4	5995
767	4	5211	817	4	5612	867	6	6001
768	18	5229	818	4	5616	868	12	6013
769	2	5231	819	12	5628	869	4	6017
770	16	5247	820	12	5640	870	16	6033
771	4	5251	821	2	5642	871	4	6037
772	6	5257	822	8	5650	872	8	6045
773	2	5259	823	2	5652	873	6	6051
774	12	5271	824	8	5660	874	8	6059
775	6	5277	825	12	5672	875	8	6067
776	8	5285	826	8	5680	876	12	6079
777	8	5293	827	2	5682	877	2	6081
778	4	5297	828	18	5700	878	4	6085
779	4	5301	829	2	5702	879	4	6089
780	24	5325	830	8	5710	880	20	6109
781	4	5329	831	4	5714	881	2	6111
782	8	5337	832	14	5728	882	18	6129
783	8	5345	833	6	5734	883	2	6131
784	15	5360	834	8	5742	884	12	6143
785	4	5364	835	4	5746	885	8	6151
786	8	5372	836	12	5758	886	4	6155
787	2	5374	837	8	5766	887	2	6157
788	6	5380	838	4	5770	888	16	6173
789	4	5384	839	2	5772	889	4	6177
790	8	5392	840	32	5804	890	8	6185
791	4	5396	841	3	5807	891	10	6195
792	24	5420	842	4	5811	892	6	6201
793	4	5424	843	4	5815	893	4	6205
794	4	5428	844	6	5821	894	8	6213
795	8	5436	845	6	5827	895	4	6217
796	6	5442	846	12	5839	896	16	6233
797	2	5444	847	6	5845	897	8	6241
798	16	4360	848	10	5855	898	4	6245
799	4	5464	849	4	5859	899	4	6249
800	18	5482	850	12	5871	900	27	6276

NUMBER OF DIVISORS OF n

n	$\tau(n)$	Sum	n	$\tau(n)$	Sum
901	4	6280	951	4	6670
902	8	6288	952	16	6686
903	8	6296	953	2	6688
904	8	6304	954	12	6700
905	4	6308	955	4	6704
906	8	6316	956	6	6710
907	2	6318	957	8	6718
908	6	6324	958	4	6722
909	6	6330	959	4	6726
910	16	6346	960	28	6754
911	2	6348	961	3	6757
912	20	6368	962	8	6765
913	4	6372	963	6	6771
914	4	6376	964	6	6777
915	8	6384	965	4	6781
916	6	6390	966	16	6797
917	4	6394	967	2	6799
918	16	6410	968	12	6811
919	2	6412	969	8	6819
920	16	6428	970	8	6827
921	4	6432	971	2	6829
922	4	6436	972	18	6847
923	4	6440	973	4	6851
924	24	6464	974	4	6855
925	6	6470	975	12	6867
926	4	6474	976	10	6877
927	6	6480	977	2	6879
928	12	6492	978	8	6887
929	2	6494	979	4	6891
930	16	6510	980	18	6909
931	6	6516	981	6	6915
932	6	6522	982	4	6919
933	4	6526	983	2	6921
934	4	6530	984	16	6937
935	8	6538	985	4	6941
936	24	6562	986	8	6949
937	2	6564	987	8	6957
938	8	6572	988	12	6969
939	4	6576	989	4	6973
940	12	6588	990	24	6997
941	2	6590	991	2	6999
942	8	6598	992	12	7011
943	4	6602	993	4	7015
944	10	6612	994	8	7023
945	16	6628	995	4	7027
946	8	6636	996	12	7039
947	2	6638	997	2	7041
948	12	6650	998	4	7045
949	4	6654	999	8	7053
950	12	6666	1000	16	7069

SUM OF DIVISORS

n	σ(n)	n	σ(n)	n	σ(n)	n	σ(n)
1	1	46	72	91	112	136	270
2	3	47	48	92	168	137	138
3	4	48	124	93	128	138	288
4	7	49	57	94	144	139	140
5	6	50	93	95	120	140	336
6	12			96	252		
7	8	51	72	97	98	141	192
8	15	52	98	98	171	142	216
9	13	53	54	99	156	143	168
10	18	54	120	100	217	144	403
		55	72			145	180
11	12	56	120	101	102	146	222
12	28	57	80	102	216	147	228
13	14	58	90	103	104	148	266
14	24	59	60	104	210	149	150
15	24	60	168	105	192	150	372
16	31			106	162		
17	18	61	62	107	108	151	152
18	39	62	96	108	280	152	300
19	20	63	104	109	110	153	234
20	42	64	127	110	216	154	288
		65	84			155	192
21	32	66	144	111	152	156	392
22	36	67	68	112	248	157	158
23	24	68	126	113	114	158	240
24	60	69	96	114	240	159	216
25	31	70	144	115	144	160	378
26	42			116	210		
27	40	71	72	117	182	161	192
28	56	72	195	118	180	162	363
29	30	73	74	119	144	163	164
30	72	74	114	120	360	164	294
		75	124			165	288
31	32	76	140	121	133	166	252
32	63	77	96	122	186	167	168
33	48	78	168	123	168	168	480
34	54	79	80	124	224	169	183
35	48	80	186	125	156	170	324
36	91			126	312		
37	38	81	121	127	128	171	260
38	60	82	126	128	255	172	308
39	56	83	84	129	176	173	174
40	90	84	224	130	252	174	360
		85	108			175	248
41	42	86	132	131	132	176	372
42	96	87	120	132	336	177	240
43	44	88	180	133	160	178	270
44	84	89	90	134	204	179	180
45	78	90	234	135	240	180	546

SUM OF DIVISORS

n	σ(n)	n	σ(n)	n	σ(n)	n	σ(n)
181	182	226	342	271	272	316	560
182	336	227	228	272	558	317	318
183	248	228	560	273	448	318	648
184	360	229	230	274	414	319	360
185	228	230	432	275	372	320	762
186	384			276	672		
187	216	231	384	277	278	321	432
188	336	232	450	278	420	322	576
189	320	234	234	279	416	323	360
190	360	234	546	280	720	324	847
		235	288			325	434
191	192	236	420	281	282	326	492
192	508	237	320	282	576	327	440
193	194	238	432	283	284	328	630
194	294	239	240	284	504	329	384
195	336	240	744	285	480	330	864
196	399			286	504		
197	198	241	242	287	336	331	332
198	468	242	399	288	819	332	588
199	200	243	364	289	307	333	494
200	465	244	434	290	540	334	504
		245	342			335	408
201	272	246	504	291	392	336	992
202	306	247	280	292	518	337	338
203	240	248	480	293	294	338	549
204	504	249	336	294	684	339	456
205	252	250	468	295	360	340	756
206	312			296	570		
207	312	251	252	297	480	341	384
208	434	252	728	298	450	342	780
209	240	253	288	299	336	343	400
210	576	254	384	300	868	344	660
		255	432			345	576
211	212	256	511	301	352	346	522
212	378	257	258	302	456	347	348
213	288	258	528	303	408	348	840
214	324	259	304	304	620	349	350
215	264	260	588	305	372	350	744
216	600			306	702		
217	256	261	390	307	308	351	560
218	330	262	396	308	672	352	756
219	296	263	264	309	416	353	354
220	504	264	720	310	576	354	720
		265	324			355	432
221	252	266	480	311	312	356	630
222	456	267	360	312	840	357	576
223	224	268	476	313	314	358	540
224	504	269	270	314	474	359	360
225	403	270	720	315	624	360	1170

SUMS OF DIVISORS

n	σ(n)	n	σ(n)	n	σ(n)	n	σ(n)
361	381	406	720	451	504	496	992
362	546	407	456	452	798	497	576
363	532	408	1080	453	608	498	1008
364	784	409	410	454	684	499	500
365	444	410	756	455	672	500	1092
366	744			456	1200		
367	368	411	552	457	458	501	672
368	744	412	728	458	690	502	756
369	546	413	480	459	720	503	504
370	684	414	936	460	1008	504	1560
		415	504			505	612
371	432	416	882	461	462	506	864
372	896	417	560	462	1152	507	732
373	374	418	720	463	464	508	896
374	648	419	420	464	930	509	510
375	624	420	1344	465	768	510	1296
376	720			466	702		
377	420	421	422	467	468	511	592
378	960	422	636	468	1274	512	1023
379	380	423	624	469	544	513	800
380	840	424	810	470	864	514	774
		425	558			515	624
381	512	426	864	471	632	516	1232
382	576	427	496	472	900	517	576
383	384	428	756	473	528	518	912
384	1020	429	672	474	960	519	696
385	576	430	792	475	620	520	1260
386	582			476	1008		
387	572	431	432	477	702	521	522
388	686	432	1240	478	720	522	1170
389	390	433	434	479	480	523	524
390	1008	434	768	480	1512	524	924
		435	720			525	992
391	432	436	770	481	532	526	792
392	855	437	480	482	726	527	576
393	528	438	888	483	768	528	1488
394	594	439	440	484	931	529	553
395	480	440	1080	485	588	530	972
396	1092			486	1092		
397	398	441	741	487	488	531	780
398	600	442	756	488	930	532	1120
399	640	443	444	489	656	533	588
400	961	444	1064	490	1026	534	1080
		445	540			535	648
401	402	446	672	491	492	536	1020
402	816	447	600	492	1176	537	720
403	448	448	1016	493	540	538	810
404	714	449	450	494	840	539	684
405	726	450	1209	495	936	540	1680

n	σ(n)	n	σ(n)	n	σ(n)	n	σ(n)
541	542	586	882	631	632	676	1281
542	816	587	588	632	1200	677	678
543	728	588	1596	633	848	678	1368
544	1134	589	640	634	954	679	784
545	660	590	1080	635	768	680	1620
546	1344			636	1512		
547	548	591	792	637	798	681	912
548	966	592	1178	638	1080	682	1152
549	806	593	594	639	936	683	684
550	1116	594	1440	640	1530	684	1820
		595	864			685	828
551	600	596	1050	641	642	686	1200
552	1440	597	800	642	1296	687	920
553	640	598	1008	643	644	688	1364
554	834	599	600	644	1344	689	756
555	912	600	1860	645	1056	690	1728
556	980			646	1080		
557	558	601	602	647	648	691	692
558	1248	602	1056	648	1815	692	1218
559	616	603	884	649	720	693	1248
560	1488	604	1064	650	1302	694	1044
		605	798			695	840
561	864	606	1224	651	1024	696	1800
562	846	607	608	652	1148	697	756
563	564	608	1260	653	654	698	1050
564	1344	609	960	654	1320	699	936
565	684	610	1116	655	792	700	1736
566	852			656	1302		
567	968	611	672	657	962	701	702
568	1080	612	1638	658	1152	702	1680
569	570	613	614	659	660	703	760
570	1440	614	924	660	2016	704	1524
		615	1008			705	1152
571	572	616	1440	661	662	706	1062
572	1176	617	618	662	996	707	816
573	768	618	1248	663	1008	708	1680
574	1008	619	620	664	1260	709	710
575	744	620	1344	665	960	710	1296
576	1651			666	1482		
577	578	621	960	667	720	711	1040
578	921	622	936	668	1176	712	1350
579	776	623	720	669	896	713	768
580	1260	624	1736	670	1224	714	1728
		625	781			715	1008
581	672	626	942	671	744	716	1260
582	1176	627	960	672	2016	717	960
583	648	628	1106	673	674	718	1080
584	1110	629	684	674	1014	719	720
585	1092	630	1872	675	1240	720	2418

n	σ(n)	n	σ(n)	n	σ(n)	n	σ(n)
721	832	766	1152	811	812	856	1620
722	1143	767	840	812	1680	857	858
723	968	768	2044	813	1088	858	2016
724	1274	769	770	814	1368	859	860
725	930	770	1728	815	984	860	1848
726	1596			816	2232		
727	728	771	1032	817	880	861	1344
728	1680	772	1358	818	1230	862	1296
729	1093	773	774	819	1456	863	864
730	1332	774	1716	820	1764	864	2520
		775	992			865	1044
731	792	776	1470	821	822	866	1302
732	1736	777	1216	822	1656	867	1228
733	734	778	1170	823	824	868	1792
734	1104	779	840	824	1560	869	960
735	1368	780	2352	825	1488	870	2160
736	1512			826	1440		
737	816	781	864	827	828	871	952
738	1638	782	1296	828	2184	872	1650
739	740	783	1200	829	830	873	1274
740	1596	784	1767	830	1512	874	1440
		785	948			875	1248
741	1120	786	1584	831	1112	876	2072
742	1296	787	788	832	1778	877	878
743	744	788	1386	833	1026	878	1320
744	1920	789	1056	834	1680	879	1176
745	900	790	1440	835	1008	880	2232
746	1122			836	1680		
747	1092	791	912	837	1280	881	882
748	1512	792	2340	838	1260	882	2223
749	864	793	868	839	840	883	884
750	1872	794	1194	840	2880	884	1764
		795	1296			885	1440
751	752	796	1400	841	871	886	1332
752	1488	797	798	842	1266	887	888
753	1008	798	1920	843	1128	888	2280
754	1260	799	864	844	1484	889	1024
755	912	800	1953	845	1098	890	1620
756	2240			846	1872		
757	758	801	1170	847	1064	891	1452
758	1140	802	1206	848	1674	892	1568
759	1152	803	888	849	1136	893	960
760	1800	804	1904	850	1674	894	1800
		805	1152			895	1080
761	762	806	1344	851	912	896	2040
762	1536	807	1080	852	2016	897	1344
763	880	808	1530	853	854	898	1350
764	1344	809	810	854	1488	899	960
765	1404	810	2178	855	1560	900	2821

n	σ(n)	n	σ(n)	n	σ(n)
901	972	946	1584	991	992
902	1512	947	948	992	2016
903	1408	948	2240	993	1328
904	1710	949	1036	994	1728
905	1092	950	1860	995	1200
906	1824			996	2352
907	908	951	1272	997	998
908	1596	952	2160	998	1500
909	1326	953	954	999	1520
910	2016	954	2106	1000	2340
		955	1152		
911	912	956	1680		
912	2480	957	1440		
913	1008	958	1440		
914	1374	959	1104		
915	1488	960	3048		
916	1610				
917	1056	961	993		
918	2160	962	1596		
919	920	963	1404		
920	2160	964	1694		
		965	1164		
921	1232	966	2304		
922	1386	967	968		
923	1008	968	1995		
924	2688	969	1440		
925	1178	970	1764		
926	1392				
927	1352	971	972		
928	1890	972	2548		
929	930	973	1120		
930	2304	974	1464		
		975	1736		
931	1140	976	1922		
932	1638	977	978		
933	1248	978	1968		
934	1404	979	1080		
935	1296	980	2394		
936	2730				
937	938	981	1430		
938	1632	982	1476		
939	1256	983	984		
940	2016	984	2520		
		985	1188		
941	942	986	1620		
942	1896	987	1536		
943	1008	988	1960		
944	1860	989	1056		
945	1920	990	2808		

TOTIENT AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
1	1	1	51	32	806	101	100	3144
2	1	2	52	24	830	102	32	3176
3	2	4	53	52	882	103	102	3278
4	2	6	54	18	900	104	48	3326
5	4	10	55	40	940	105	48	3374
6	2	12	56	24	964	106	52	3426
7	6	18	57	36	1000	107	106	3532
8	4	22	58	28	1028	108	36	3568
9	6	28	59	58	1086	109	108	3676
10	4	32	60	16	1102	110	40	3716
11	10	42	61	60	1162	111	72	3788
12	4	46	62	30	1192	112	48	3836
13	12	58	63	36	1228	113	112	3948
14	6	64	64	32	1260	114	36	3984
15	8	72	65	48	1308	115	88	4072
16	8	80	66	20	1328	116	56	4128
17	16	96	67	66	1394	117	72	4200
18	6	102	68	32	1426	118	58	4258
19	18	120	69	44	1470	119	96	4354
20	8	128	70	24	1494	120	32	4386
21	12	140	71	70	1564	121	110	4496
22	10	150	72	24	1588	122	60	4556
23	22	172	73	72	1660	123	80	4636
24	8	180	74	36	1696	124	60	4696
25	20	200	75	40	1736	125	100	4796
26	12	212	76	36	1772	126	36	4832
27	18	230	77	60	1832	127	126	4958
28	12	242	78	24	1856	128	64	5022
29	28	270	79	78	1934	129	84	5106
30	8	278	80	32	1966	130	48	5154
31	30	308	81	54	2020	131	130	5284
32	16	324	82	40	2060	132	40	5324
33	20	344	83	82	2142	133	108	5432
34	16	360	84	24	2166	134	66	5498
35	24	384	85	64	2230	135	72	5570
36	12	396	86	42	2272	136	64	5634
37	36	432	87	56	2328	137	136	5770
38	18	450	88	40	2368	138	44	5814
39	24	474	89	88	2456	139	138	5952
40	16	490	90	24	2480	140	48	6000
41	40	530	91	72	2552	141	92	6092
42	12	542	92	44	2596	142	70	6162
43	42	584	93	60	2656	143	120	6282
44	20	604	94	46	2702	144	48	6330
45	24	628	95	72	2774	145	112	6442
46	22	650	96	32	2806	146	72	6514
47	46	696	97	96	2902	147	84	6598
48	16	712	98	42	2944	148	72	6670
49	42	754	99	60	3004	149	148	6818
50	20	774	100	40	3044	150	40	6858

TOTIENT AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
151	150	7008	201	132	12364	251	250	19274
152	72	7080	202	100	12464	252	72	19346
153	96	7176	203	168	12632	253	220	19566
154	60	7236	204	64	12696	254	126	19692
155	120	7356	205	160	12856	255	128	19820
156	48	7404	206	102	12958	256	128	19948
157	156	7560	207	132	13090	257	256	20204
158	78	7638	208	96	13186	258	84	20288
159	104	7742	209	180	13366	259	216	20504
160	64	7806	210	48	13414	260	96	20600
161	132	7938	211	210	13624	261	168	20768
162	54	7992	212	104	13728	262	130	20898
163	162	8154	213	140	13868	263	262	21160
164	80	8234	214	106	13974	264	80	21240
165	80	8314	215	168	14142	265	208	21448
166	82	8396	216	72	14214	266	108	21556
167	166	8562	217	180	14394	267	176	21732
168	48	8610	218	108	14502	268	132	21864
169	156	8766	219	144	14646	269	268	22132
170	64	8830	220	80	14726	270	72	22204
171	108	8938	221	192	14918	271	270	22474
172	84	9022	222	72	14990	272	128	22602
173	172	9194	223	222	15212	273	144	22746
174	56	9250	224	96	15308	274	136	22882
175	120	9370	225	120	15428	275	200	23082
176	80	9450	226	112	15540	276	88	23170
177	116	9566	227	226	15766	277	276	23446
178	88	9654	228	72	15838	278	138	23584
179	178	9832	229	228	16066	279	180	23764
180	48	9880	230	88	16154	280	96	23860
181	180	10060	231	120	16274	281	280	24140
182	72	10132	232	112	16386	282	92	24232
183	120	10252	233	232	16618	283	282	24514
184	88	10340	234	72	16690	284	140	24654
185	144	10484	235	184	16874	285	144	24798
186	60	10544	236	116	16990	286	120	24918
187	160	10704	237	156	17146	287	240	25158
188	92	10796	238	96	17242	288	96	25254
189	108	10904	239	238	17480	289	272	25526
190	72	10976	240	64	17544	290	112	25638
191	190	11166	241	240	17784	291	192	25830
192	64	11230	242	110	17894	292	144	25974
193	192	11422	243	162	18056	293	292	26266
194	96	11518	244	120	18176	294	84	26350
195	96	11614	245	168	18344	295	232	26582
196	84	11698	246	80	18424	296	144	26726
197	196	11894	247	216	18640	297	180	26906
198	60	11954	248	120	18760	298	148	27054
199	198	12152	249	164	18924	299	264	27318
200	80	12232	250	100	19024	300	80	27398

TOTIENT AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
301	252	27650	351	216	37546	401	400	49078
302	150	27800	352	160	37706	402	132	49210
303	200	28000	353	352	38058	403	360	49570
304	144	28144	354	116	38174	404	200	49770
305	240	28384	355	280	38454	405	216	49986
306	96	28480	356	176	38630	406	168	50154
307	306	28786	357	192	38822	407	360	50514
308	120	28906	358	178	39000	408	128	50642
309	204	29110	359	358	39358	409	408	51050
310	120	29230	360	96	39454	410	160	51210
311	310	29540	361	342	39796	411	272	51482
312	96	29636	362	180	39976	412	204	51686
313	312	29948	363	220	40196	413	348	52034
314	156	30104	364	144	40340	414	132	52166
315	144	30248	365	288	40628	415	328	52494
316	156	30404	366	120	40748	416	192	52686
317	316	30720	367	366	41114	417	276	52962
318	104	30824	368	176	41290	418	180	53142
319	280	31104	369	240	41530	419	418	53560
320	128	31232	370	144	41674	420	96	53656
321	212	31444	371	312	41986	421	420	54076
322	132	31576	372	120	42106	422	210	54286
323	288	31864	373	372	42478	423	276	54562
324	108	31972	374	160	42638	424	208	54770
325	240	32212	375	200	42838	425	320	55090
326	162	32374	376	184	43022	426	140	55230
327	216	32590	377	336	43358	427	360	55590
328	160	32750	378	108	43466	428	212	55802
329	276	33026	379	378	43844	429	240	56042
330	80	33106	380	144	43988	430	168	56210
331	330	33436	381	252	44240	431	430	56640
332	164	33600	382	190	44430	432	144	56784
333	216	33816	383	382	44812	433	432	57216
334	166	33982	384	128	44940	434	180	57396
335	264	34246	385	240	45180	435	224	57620
336	96	34342	386	192	45372	436	216	57836
337	336	34678	387	252	45624	437	396	58232
338	156	34834	388	192	45816	438	144	58376
339	224	35058	389	388	46204	439	438	58814
340	128	35186	390	96	46300	440	160	58974
341	300	35486	391	352	46652	441	252	59226
342	108	35594	392	168	46820	442	192	59418
343	294	35888	393	260	47080	443	442	59860
344	168	36056	394	196	47276	444	144	60004
345	176	36232	395	312	47588	445	352	60356
346	172	36404	396	120	47708	446	222	60578
347	346	36750	397	396	48104	447	296	60874
348	112	36862	398	198	48302	448	192	61066
349	348	37210	399	216	48518	449	448	61514
350	120	37330	400	160	48678	450	120	61634

TOTIENT AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
451	400	62034	501	332	76448	551	504	92526
452	224	62258	502	250	76698	552	176	92702
453	300	62558	503	502	77200	553	468	93170
454	226	62784	504	144	77344	554	276	93446
455	288	63072	505	400	77744	555	288	93734
456	144	63216	506	220	77964	556	276	94010
457	456	63672	507	312	78276	557	556	94566
458	228	63900	508	252	78528	558	180	94746
459	288	64188	509	508	79036	559	504	95250
460	176	64364	510	128	79164	560	192	95442
461	460	64824	511	432	79596	561	320	95762
462	120	64944	512	256	79852	562	280	96042
463	462	65406	513	324	80176	563	562	96604
464	224	65630	514	256	80432	564	184	96788
465	240	65870	515	408	80840	565	448	97236
466	232	66102	516	168	81008	566	282	97518
467	466	66568	517	460	81468	567	324	97842
468	144	66712	518	216	81684	568	280	98122
469	396	67108	519	344	82028	569	568	98690
470	184	67292	520	192	82220	570	144	98834
471	312	67604	521	520	82740	571	570	99404
472	232	67836	522	168	82908	572	240	99644
473	420	68256	523	522	83430	573	380	100024
474	156	68412	524	260	83690	574	240	100264
475	360	68772	525	240	83930	575	440	100704
476	192	68964	526	262	84192	576	192	100896
477	312	69276	527	480	84672	577	576	101472
478	238	69514	528	160	84832	578	272	101744
479	478	69992	529	506	85338	579	384	102128
480	128	70120	530	208	85546	580	224	102352
481	432	70552	531	348	85894	581	492	102844
482	240	70792	532	216	86110	582	192	103036
483	264	71056	533	480	86590	583	520	103556
484	220	71276	534	176	86766	584	288	103844
485	384	71660	535	424	87190	585	288	104132
486	162	71822	536	264	87454	586	292	104424
487	486	72308	537	356	87810	587	586	105010
488	240	72548	538	268	88078	588	168	105178
489	324	72872	539	420	88498	589	540	105718
490	168	73040	540	144	88642	590	232	105950
491	490	73530	541	540	89182	591	392	106342
492	160	73690	542	270	89452	592	288	106630
493	448	74138	543	360	89812	593	592	107222
494	216	74354	544	256	90068	594	180	107402
495	240	74594	545	432	90500	595	384	107786
496	240	74834	546	144	90644	596	296	108082
497	420	75254	547	546	91190	597	396	108478
498	164	75418	548	272	91462	598	264	108742
499	498	75916	549	360	91822	599	598	109340
500	200	76116	550	200	92022	600	160	109500

TOTIENT AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
601	600	110100	651	360	128962	701	700	149718
602	252	110352	652	324	129286	702	216	149934
603	396	110748	653	652	129938	703	648	150582
604	300	111048	654	216	130154	704	320	150902
605	440	111488	655	520	130674	705	368	151270
606	200	111688	656	320	130994	706	352	151622
607	606	112294	657	432	131426	707	600	152222
608	288	112582	658	276	131702	708	232	152454
609	336	112918	659	658	132360	709	708	153162
610	240	113158	660	160	132520	710	280	153442
611	552	113710	661	660	133180	711	468	153910
612	192	113902	662	330	133510	712	352	154262
613	612	114514	663	384	133894	713	660	154922
614	306	114820	664	328	134222	714	192	155114
615	320	115140	665	432	134654	715	480	155594
616	240	115380	666	216	134870	716	356	155950
617	616	115996	667	616	135486	717	476	156426
618	204	116200	668	332	135818	718	358	156784
619	618	116818	669	444	136262	719	718	157502
620	240	117058	670	264	136526	720	192	157694
621	396	117454	671	600	137126	721	612	158306
622	310	117764	672	192	137318	722	342	158648
623	528	118292	673	672	137990	723	480	159128
624	192	118484	674	336	138326	724	360	159488
625	500	118984	675	360	138686	725	560	160048
626	312	119296	676	312	138998	726	220	160268
627	360	119656	677	676	139674	727	726	160994
628	312	119968	678	224	139898	728	288	161282
629	576	120544	679	576	140474	729	486	161768
630	144	120688	680	256	140730	730	288	162056
631	630	121318	681	452	141182	731	672	162728
632	312	121630	682	300	141482	732	240	162968
633	420	122050	683	682	142164	733	732	163700
634	316	122366	684	216	142380	734	366	164066
635	504	122870	685	544	142924	735	336	164402
636	208	123078	686	294	143218	736	352	164754
637	504	123582	687	456	143674	737	660	165414
638	280	123862	688	336	144010	738	240	165654
639	420	124282	689	624	144634	739	738	166392
640	256	124538	690	176	144810	740	288	166680
641	640	125178	691	690	145500	741	432	167112
642	212	125390	692	344	145844	742	312	167424
643	642	126032	693	360	146204	743	742	168166
644	264	126296	694	346	146550	744	240	168406
645	336	126632	695	552	147102	745	592	168998
646	288	126920	696	224	147326	746	372	169370
647	646	127566	697	640	147966	747	492	169862
648	216	127782	698	348	148314	748	320	170182
649	580	128362	699	464	148778	749	636	170818
650	240	128602	700	240	149018	750	200	171018

TOTIENTS AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
751	750	171768	801	528	195278	851	792	220452
752	368	172136	802	400	195678	852	280	220732
753	500	172636	803	720	196398	853	852	221584
754	336	172972	804	264	196662	854	360	221944
755	600	173572	805	528	197190	855	432	222376
756	216	173788	806	360	197550	856	424	222800
757	756	174544	807	536	198086	857	856	223656
758	378	174922	808	400	198486	858	240	223896
759	440	175362	809	808	199294	859	858	224754
760	288	175650	810	216	199510	860	336	225090
761	760	176410	811	810	200320	861	480	225570
762	252	176662	812	336	200656	862	430	226000
763	648	177310	813	540	201196	863	862	226862
764	380	177690	814	360	201556	864	288	227150
765	384	178074	815	648	202204	865	688	227838
766	382	178456	816	256	202460	866	432	228270
767	696	179152	817	756	203216	867	544	228814
768	256	179408	818	408	203624	868	360	229174
769	768	180176	819	432	204056	869	780	229954
770	240	180416	820	320	204376	870	224	230178
771	512	180928	821	820	205196	871	792	230970
772	384	181312	822	272	205468	872	432	231402
773	772	182084	823	822	206290	873	576	231978
774	252	182336	824	408	206698	874	396	232374
775	600	182936	825	400	207098	875	600	232974
776	384	183320	826	348	207446	876	288	233262
777	432	183752	827	826	208272	877	876	234138
778	388	184140	828	264	208536	878	438	234576
779	720	184860	829	828	209364	879	584	235160
780	192	185052	830	328	209692	880	320	235480
781	700	185752	831	552	210244	881	880	236360
782	352	186104	832	384	210628	882	252	236612
783	504	186608	833	672	211300	883	882	237494
784	336	186944	834	276	211576	884	384	237878
785	624	187568	835	644	212240	885	464	238342
786	260	187828	836	360	212600	886	442	238784
787	786	188614	837	540	213140	887	886	239670
788	392	189006	838	418	213558	888	288	239958
789	524	189530	839	838	214396	889	756	240714
790	312	189842	840	192	214588	890	352	241066
791	672	190514	841	812	215400	891	540	241606
792	240	190754	842	420	215820	892	444	242050
793	720	191474	843	560	216380	893	828	242878
794	396	191870	844	420	216800	894	296	243174
795	416	192286	845	624	217424	895	712	243886
796	396	192682	846	276	217700	896	384	244270
797	796	193478	847	660	218360	897	528	244798
798	216	193694	848	416	218776	898	448	245246
799	736	194430	849	564	219340	899	840	246086
800	320	194750	850	320	219660	900	240	246326

TOTIENT AND SUM OF TOTIENTS

n	$\phi(n)$	Sum	n	$\phi(n)$	Sum
901	832	247158	951	632	275206
902	400	247558	952	384	275590
903	504	248062	953	952	276542
904	448	248510	954	312	276854
905	720	249230	955	760	277614
906	300	249530	956	476	278090
907	906	250436	957	560	278650
908	452	250888	958	478	279128
909	600	251488	959	816	279944
910	288	251776	960	256	280200
911	910	252686	961	930	281130
912	288	252974	962	432	281562
913	820	253794	963	636	282198
914	456	254250	964	480	282678
915	480	254730	965	768	283446
916	456	255186	966	264	283710
917	780	255966	967	966	284676
918	288	256254	968	440	285116
919	918	257172	969	576	285692
920	352	257524	970	384	286076
921	612	258136	971	970	287046
922	460	258596	972	324	287370
923	840	259436	973	828	288198
924	240	259676	974	486	288684
925	720	260396	975	480	289164
926	462	260858	976	480	289644
927	612	261470	977	976	290620
928	448	261918	978	324	290944
929	928	262846	979	880	291824
930	240	263086	980	336	292160
931	756	263842	981	648	292808
932	464	264306	982	490	293298
933	620	264926	983	982	294280
934	466	265392	984	320	294600
935	640	266032	985	784	295384
936	288	266320	986	448	295832
937	936	267256	987	552	296384
938	396	267652	988	432	296816
939	624	268276	989	924	297740
940	368	268644	990	240	297980
941	940	269584	991	990	298970
942	312	269896	992	480	299450
943	880	270776	993	660	300110
944	464	271240	994	420	300530
945	432	271672	995	792	301322
946	420	272092	996	328	301650
947	946	273038	997	996	302646
948	312	273350	998	498	303144
949	864	274214	999	648	303792
950	360	274574	1000	400	304192

QUADRATIC RESIDUES

Quadratic residues are given for all moduli up to 100; for primes and powers of primes up to 200.

m	QUADRATIC RESIDUES									
3	1									
4	1									
5	1	4								
6	1	3	4							
7	1	2	4							
8	1	4								
9	1	4	7							
10	1	4	5	6	9					
11	1	3	4	5	9					
12	1	4	9							
13	1	3	4	9	10	12				
14	1	2	4	7	8	9	11			
15	1	4	6	9	10					
16	1	4	9							
17	1	2	4	8	9	13	15	16		
18	1	4	7	9	10	13	16			
19	1	4	5	6	7	9	11	16	17	
20	1	4	5	9	16					
21	1	4	7	9	15	16	18			
22	1	3	4	5	9	11	12	14	15	16
	20									
23	1	2	3	4	6	8	9	12	13	16
	18									
24	1	4	9	12	16					
25	1	4	6	9	11	14	16	19	21	24
26	1	3	4	9	10	12	13	14	16	17
	22	23	25							
27	1	4	7	9	10	13	16	19	22	25
28	1	4	8	9	16	21	25			
29	1	4	5	6	7	9	13	16	20	22
	23	24	25	28						
30	1	4	6	9	10	15	16	19	21	24
	25									
31	1	2	4	5	7	8	9	10	14	16
	18	19	20	25	28					
32	1	4	9	16	17	25				
33	1	3	4	9	12	15	16	22	25	27
	31									
34	1	2	4	8	9	13	15	16	17	18
	19	21	25	26	30	32	33			
35	1	4	9	11	14	15	16	21	25	29
	30									
36	1	4	9	13	16	25	28			
37	1	3	4	7	9	10	11	12	16	21
	25	26	27	28	30	33	34	36		
38	1	4	5	6	7	9	11	16	17	19
	20	23	24	25	26	28	30	35	36	

QUADRATIC RESIDUES

m	QUADRATIC RESIDUES									
39	1	3	4	9	10	12	13	16	22	25
	27	30	36							
40	1	4	9	16	20	24	25	36		
41	1	2	4	5	8	9	10	16	18	20
	21	23	25	31	32	33	36	37	39	40
42	1	4	7	9	15	16	18	21	22	25
	28	30	36	37	39					
43	1	4	6	9	10	11	13	14	15	16
	17	21	23	24	25	31	35	36	38	40
	41									
44	1	4	5	9	12	16	20	25	33	36
	37									
45	1	4	9	10	16	19	25	31	34	36
	40									
46	1	2	3	4	6	8	9	12	13	16
	18	23	24	25	26	27	29	31	32	35
	36	39	41							
47	1	2	3	4	6	7	8	9	12	14
	16	17	18	21	24	25	27	28	32	34
	36	37	42							
48	1	4	9	16	25	33	36			
49	1	2	4	8	9	11	15	16	18	22
	23	25	29	30	32	36	37	39	43	44
	46									
50	1	4	6	9	11	14	16	19	21	24
	25	26	29	31	34	36	39	41	44	46
	49									
51	1	4	9	13	15	16	18	19	21	25
	30	33	34	36	42	43	49			
52	1	4	9	12	13	16	17	25	29	36
	40	48	49							
53	1	4	6	7	9	10	11	13	15	16
	17	24	25	28	29	36	37	38	40	42
	43	44	46	47	49	52				
54	1	4	7	9	10	13	16	19	22	25
	27	28	31	34	36	37	40	43	46	49
	52									
55	1	4	5	9	11	14	15	16	20	25
	26	31	34	36	44	45	49			
56	1	4	8	9	16	25	28	32	36	44
	49									
57	1	4	6	7	9	16	19	24	25	28
	30	36	39	42	43	45	49	54	55	
58	1	4	5	6	7	9	13	16	20	22
	23	24	25	28	29	30	33	34	35	36
	38	42	45	49	51	52	53	54	57	

m	QUADRATIC RESIDUES									
59	1	3	4	5	7	9	12	15	16	17
	19	20	21	22	25	26	27	28	29	35
	36	41	45	46	48	49	51	53	57	
60	1	4	9	16	21	24	25	36	40	45
	49									
61	1	3	4	5	9	12	13	14	15	16
	19	20	22	25	27	34	36	39	41	42
	45	46	47	48	49	52	56	57	58	60
62	1	2	4	5	7	8	9	10	14	16
	18	19	20	25	28	31	32	33	35	36
	38	39	40	41	45	47	49	50	51	56
	59									
63	1	4	7	9	16	18	22	25	28	36
	37	43	46	49	58					
64	1	4	9	16	17	25	33	36	41	49
	57									
65	1	4	9	10	14	16	25	26	29	30
	35	36	39	40	49	51	55	56	61	64
66	1	3	4	9	12	15	16	22	25	27
	31	33	34	36	37	42	45	48	49	55
	58	60	64							
67	1	4	6	9	10	14	15	16	17	19
	21	22	23	24	25	26	29	33	35	36
	37	39	40	47	49	54	55	56	59	60
	62	64	65							
68	1	4	8	9	13	16	17	21	25	32
	33	36	49	52	53	60	64			
69	1	3	4	6	9	12	13	16	18	24
	25	27	31	36	39	46	48	49	52	54
	55	58	64							
70	1	4	9	11	14	15	16	21	25	29
	30	35	36	39	44	46	49	50	51	56
	60	64	65							
71	1	2	3	4	5	6	8	9	10	12
	15	16	18	19	20	24	25	27	29	30
	32	36	37	38	40	43	45	48	49	50
	54	57	58	60	64					
72	1	4	9	16	25	28	36	40	49	52
	64									
73	1	2	3	4	6	8	9	12	16	18
	19	23	24	25	27	32	35	36	37	38
	41	46	48	49	50	54	55	57	61	64
	65	67	69	70	71	72				
74	1	3	4	7	9	10	11	12	16	21
	25	26	27	28	30	33	34	36	37	38
	40	41	44	46	47	48	49	53	58	62
	63	64	65	67	70	71	73			

QUADRATIC RESIDUES

m	QUADRATIC RESIDUES									
101	1	4	5	6	9	13	14	16	17	19
	20	21	22	23	24	25	30	31	33	36
	37	43	45	47	49	52	54	56	58	64
	65	68	70	71	76	77	78	79	80	81
	82	84	85	87	88	92	95	96	97	100
103	1	2	4	7	8	9	13	14	15	16
	17	18	19	23	25	26	28	29	30	32
	33	34	36	38	41	46	49	50	52	55
	56	58	59	60	61	63	64	66	68	72
	76	79	81	82	83	91	92	93	97	98
	100									
107	1	3	4	9	10	11	12	13	14	16
	19	23	25	27	29	30	33	34	35	36
	37	39	40	41	42	44	47	48	49	52
	53	56	57	61	62	64	69	75	76	79
	81	83	85	86	87	89	90	92	99	100
	101	102	105							
109	1	3	4	5	7	9	12	15	16	20
	21	22	25	26	27	28	29	31	34	35
	36	38	43	45	46	48	49	60	61	63
	64	66	71	73	74	75	78	80	81	82
	83	84	87	88	89	93	94	97	100	102
	104	105	106	108						
113	1	2	4	7	8	9	11	13	14	15
	16	18	22	25	26	28	30	31	32	36
	41	44	49	50	51	52	53	56	57	60
	61	62	63	64	69	72	77	81	82	83
	85	87	88	91	95	97	98	99	100	102
	104	105	106	109	111	112				
121	1	3	4	5	9	12	14	15	16	20
	23	25	26	27	31	34	36	37	38	42
	45	47	48	49	53	56	58	59	60	64
	67	69	70	71	75	78	80	81	82	86
	89	91	92	93	97	100	102	103	104	108
	111	113	114	115	119					
127	1	2	4	8	9	11	13	15	16	17
	18	19	21	22	25	26	30	31	32	34
	35	36	37	38	41	42	44	47	49	50
	52	60	61	62	64	68	69	70	71	72
	73	74	76	79	81	82	84	87	88	94
	98	99	100	103	104	107	113	115	117	120
	121	122	124							

m	QUADRATIC RESIDUES									
131	1	3	4	5	7	9	11	12	13	15
	16	20	21	25	27	28	33	34	35	36
	38	39	41	43	44	45	46	48	49	52
	53	55	58	59	60	61	62	63	64	65
	74	75	77	80	81	84	89	91	94	99
	100	101	102	105	107	108	109	112	113	114
	117	121	123	125	129					
137	1	2	4	7	8	9	11	14	15	16
	17	18	19	22	25	28	30	32	34	36
	37	38	39	44	49	50	56	59	60	61
	63	64	65	68	69	72	73	74	76	77
	78	81	87	88	93	98	99	100	101	103
	105	107	109	112	115	118	119	120	121	122
	123	126	128	129	130	133	135	136		
139	1	4	5	6	7	9	11	13	16	20
	24	25	28	29	30	31	34	35	36	37
	38	41	42	44	45	46	47	49	51	52
	54	55	57	63	64	65	66	67	69	71
	77	78	79	80	81	83	86	89	91	96
	99	100	106	107	112	113	116	117	118	120
	121	122	124	125	127	129	131	136	137	
149	1	4	5	6	7	9	16	17	19	20
	22	24	25	26	28	29	30	31	33	35
	36	37	39	42	45	46	47	49	53	54
	61	63	64	67	68	69	73	76	80	81
	82	85	86	88	95	96	100	102	103	104
	107	110	112	113	114	116	118	119	120	121
	123	124	125	127	129	130	132	133	140	142
	143	144	145	148						
151	1	2	4	5	8	9	10	11	16	17
	18	19	20	21	22	25	29	31	32	34
	36	37	38	39	40	42	43	44	45	47
	49	50	55	58	59	62	64	68	69	72
	74	76	78	80	81	84	85	86	88	90
	91	94	95	97	98	99	100	103	105	110
	116	118	121	123	124	125	127	128	136	137
	138	139	144	145	148					
157	1	3	4	9	10	11	12	13	14	16
	17	19	25	27	30	31	33	35	36	37
	39	40	42	44	46	47	48	49	51	52
	56	57	58	64	67	68	71	75	76	81
	82	86	89	90	93	99	100	101	105	106
	108	109	110	111	113	115	117	118	120	121
	122	124	126	127	130	132	138	140	141	143
	144	145	146	147	148	153	154	156		

QUADRATIC RESIDUES

m	QUADRATIC RESIDUES									
163	1	4	6	9	10	14	15	16	21	22
	24	25	26	33	34	35	36	38	39	40
	41	43	46	47	49	51	53	54	55	56
	57	58	60	61	62	64	65	69	71	74
	77	81	83	84	85	87	88	90	91	93
	95	96	97	100	104	111	113	115	118	119
	121	126	131	132	133	134	135	136	140	143
	144	145	146	150	151	152	155	156	158	160
	161									
167	1	2	3	4	6	7	8	9	11	12
	14	16	18	19	21	22	24	25	27	28
	29	31	32	33	36	38	42	44	47	48
	49	50	54	56	57	58	61	62	63	64
	65	66	72	75	76	77	81	84	85	87
	88	89	93	94	96	97	98	99	100	107
	108	112	114	115	116	121	122	124	126	127
	128	130	132	133	137	141	144	147	150	152
	154	157	162							
169	1	3	4	9	10	12	14	16	17	22
	23	25	27	29	30	35	36	38	40	42
	43	48	49	51	53	55	56	61	62	64
	66	68	69	74	75	77	79	81	82	87
	88	90	92	94	95	100	101	103	105	107
	108	113	114	116	118	120	121	126	127	129
	131	133	134	139	140	142	144	146	147	152
	153	155	157	159	160	165	166	168		
173	1	4	6	9	10	13	14	15	16	21
	22	23	24	25	29	31	33	34	35	36
	37	38	40	41	43	47	49	51	52	54
	55	56	57	60	64	67	73	77	78	81
	83	84	85	88	89	90	92	95	96	100
	106	109	113	116	117	118	119	121	122	124
	126	130	132	133	135	136	137	138	139	140
	142	144	148	149	150	151	152	157	158	159
	160	163	164	167	169	172				
179	1	3	4	5	9	12	13	14	15	16
	17	19	20	22	25	27	29	31	36	39
	42	43	45	46	47	48	49	51	52	56
	57	59	60	61	64	65	66	67	68	70
	74	75	76	77	80	81	82	83	85	87
	88	89	93	95	100	101	106	107	108	110
	116	117	121	124	125	126	129	135	138	139
	141	142	144	145	146	147	149	151	153	155
	156	158	161	168	169	171	172	173	177	

m	QUADRATIC RESIDUES									
181	1	3	4	5	9	11	12	13	14	15
	16	20	25	27	29	33	34	36	37	38
	39	42	43	44	45	46	48	49	52	55
	56	59	60	62	64	65	67	70	73	75
	79	80	81	82	87	94	99	100	101	102
	106	108	111	114	116	117	119	121	122	125
	126	129	132	133	135	136	137	138	139	142
	143	144	145	147	148	152	154	156	161	165
	166	167	168	169	170	172	176	177	178	180
191	1	2	3	4	5	6	8	9	10	12
	13	15	16	17	18	20	23	24	25	26
	27	30	32	34	36	39	40	43	45	46
	48	49	50	51	52	54	59	60	64	65
	67	68	69	72	75	77	78	79	80	81
	85	86	90	92	96	97	98	100	102	103
	104	107	108	109	115	117	118	120	121	125
	128	129	130	133	134	135	136	138	144	147
	149	150	153	154	156	158	160	162	163	169
	170	172	177	180	184					
193	1	2	3	4	6	7	8	9	12	14
	16	18	21	23	24	25	27	28	31	32
	36	42	43	46	48	49	50	54	55	56
	59	62	63	64	65	67	69	72	75	81
	83	84	85	86	92	93	95	96	97	98
	100	101	107	108	109	110	112	118	121	124
	126	128	129	130	131	134	137	138	139	143
	144	145	147	150	151	157	161	162	165	166
	168	169	170	172	175	177	179	181	184	185
	186	187	189	190	191	192				
197	1	4	6	7	9	10	15	16	19	22
	23	24	25	26	28	29	33	34	36	37
	39	40	41	42	43	47	49	51	53	54
	55	59	60	61	62	63	64	65	70	76
	81	83	85	88	90	92	93	96	97	100
	101	104	105	107	109	112	114	116	121	127
	132	133	134	135	136	137	138	142	143	144
	146	148	150	154	155	156	157	158	160	161
	163	164	168	169	171	172	173	174	175	178
	181	182	187	188	190	191	193	196		
199	1	2	4	5	7	8	9	10	13	14
	16	18	20	23	25	26	28	29	31	32
	33	35	36	40	43	45	46	47	49	50
	51	52	53	56	57	58	61	62	63	64
	65	66	70	72	79	80	81	86	89	90
	91	92	94	98	100	102	103	104	106	111
	112	114	115	116	117	121	122	123	124	125
	126	128	130	131	132	139	140	144	145	151
	155	157	158	160	161	162	165	169	172	175
	177	178	180	182	184	187	188	193	196	

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
41	164n+	1	5	9	21	23	25	31	33	37	39	43	45
		49	51	57	59	61	73	77	81	83	87	91	103
		105	107	113	115	119	121	125	127	131	133	139	141
		143	155	159	163								
-41	164n+	1	3	5	7	9	11	15	19	21	25	27	33
		35	37	45	47	49	55	57	61	63	67	71	73
		75	77	79	81	95	99	105	111	113	121	125	133
		135	141	147	151								
42	168n+	1	11	13	17	19	25	29	41	47	53	61	79
		89	107	115	121	127	139	143	149	151	155	157	167
-42	168n+	1	13	17	23	25	29	31	41	43	53	55	59
		61	67	71	83	89	95	103	121	131	149	157	163
43	172n+	1	3	7	9	13	17	19	21	25	27	39	41
		49	51	53	55	57	63	71	75	81	91	97	101
		109	115	117	119	121	123	131	133	145	147	151	153
		155	159	163	165	169	171						
-43	172n+	1	9	11	13	15	17	21	23	25	31	35	41
		47	49	53	57	59	67	79	81	83	87	95	97
		99	101	103	107	109	111	117	121	127	133	135	139
		143	145	153	165	167	169						
46	184n+	1	3	5	7	9	15	21	25	27	35	37	41
		45	49	53	59	61	63	73	75	79	81	103	105
		109	111	121	123	125	131	135	139	143	147	149	157
		159	163	169	175	177	179	181	183				
-46	184n+	1	5	9	11	19	21	25	31	37	39	41	43
		45	47	49	51	53	55	61	67	71	73	81	83
		87	91	95	99	105	107	109	119	121	125	127	149
		151	155	157	167	169	171	177	181				
47	188n+	1	9	11	15	17	19	21	23	25	31	35	37
		39	43	49	53	61	65	67	81	87	89	91	97
		99	101	107	121	123	127	135	139	145	149	151	153
		157	163	165	167	169	171	173	177	179	187		
-47	188n+	1	3	7	9	17	21	25	27	37	49	51	53
		55	59	61	63	65	71	75	79	81	83	89	95
		97	101	103	111	115	119	121	131	143	145	147	149
		153	155	157	159	165	169	173	175	177	183		
51	204n+	1	5	7	13	25	29	31	35	41	47	49	59
		65	79	83	91	113	121	125	139	145	155	157	163
		169	173	175	179	191	197	199	203				
-51	204n+	1	5	11	13	19	23	25	29	41	43	49	55
		65	67	71	95	103	107	113	115	121	125	127	131
		143	145	151	157	167	169	173	197				

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
53	212n+	1	7	9	11	13	15	17	25	29	37	43	47
		49	57	59	63	69	77	81	89	91	93	95	97
		99	105	107	113	115	117	119	121	123	131	135	143
		149	153	155	163	165	169	175	183	187	195	197	199
		201	203	205	211								
-53	212n+	1	3	9	13	17	19	23	25	27	29	31	35
		37	39	49	51	55	57	67	69	71	75	77	79
		81	83	87	89	93	97	103	105	111	113	117	121
		127	139	147	149	151	153	165	167	169	171	179	191
		197	201	205	207								
55	220n+	1	3	9	13	17	19	23	27	39	47	49	51
		57	67	69	73	79	81	89	103	117	131	139	141
		147	151	153	163	169	171	173	181	193	197	201	203
		207	211	217	219								
-55	220n+	1	7	9	13	17	31	43	49	57	59	63	69
		71	73	81	83	87	89	91	107	111	117	119	123
		127	141	153	159	167	169	173	179	181	183	191	193
		197	199	201	217								
57	228n+	1	7	25	29	41	43	49	53	55	59	61	65
		71	73	85	89	107	113	115	121	139	143	155	157
		163	167	169	173	175	179	185	187	199	203	221	227
-57	228n+	1	11	23	25	29	31	35	41	47	49	53	61
		65	67	73	79	83	85	89	91	103	113	119	121
		127	131	151	157	169	173	185	191	211	215	221	223
58	232n+	1	3	7	9	11	19	21	23	25	27	33	37
		43	49	57	61	63	65	69	71	75	77	81	85
		99	101	103	111	121	129	131	133	147	151	155	157
		161	163	167	169	171	175	183	189	195	199	205	207
		209	211	213	221	223	225	229	231				
-58	232n+	1	9	15	21	25	31	33	35	37	39	47	49
		51	55	57	59	61	65	67	69	77	79	81	83
		85	91	95	101	107	115	119	121	123	127	129	133
		135	139	143	157	159	161	169	179	187	189	191	205
		209	213	215	219	221	225	227	229				
59	236n+	1	5	9	11	17	21	23	25	29	31	39	41
		43	45	47	49	53	55	57	67	81	83	85	91
		99	103	105	111	115	121	125	131	133	137	145	151
		153	155	169	179	181	183	187	189	191	193	195	197
		205	207	211	213	215	219	225	227	231	235		
-59	236n+	1	3	5	7	9	15	17	19	21	25	27	29
		35	41	45	49	51	53	57	63	71	75	79	81
		85	87	95	105	107	119	121	123	125	127	133	135
		137	139	143	145	147	153	159	163	167	169	171	175
		181	189	193	197	199	203	205	213	223	225		

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
61	244n+	1	3	5	9	13	15	19	25	27	39	41	45
		47	49	57	65	73	75	77	81	83	95	97	103
		107	109	113	117	119	121	123	125	127	131	135	137
		141	147	149	161	163	167	169	171	179	187	195	197
		199	203	205	217	219	225	229	231	235	239	241	243
-61	244n+	1	5	7	9	11	13	23	25	31	35	41	43
		45	49	51	55	57	59	63	65	67	71	73	77
		79	81	87	91	97	99	109	111	113	115	117	121
		125	137	139	141	143	149	151	155	159	161	169	175
		191	197	205	207	211	215	217	223	225	227	229	241
62	248n+	1	9	13	15	19	21	23	25	29	33	35	37
		41	49	51	53	55	59	61	67	77	79	81	85
		97	107	113	117	119	121	127	129	131	135	141	151
		163	167	169	171	181	187	189	193	195	197	199	207
		211	213	215	219	223	225	227	229	233	235	239	247
-62	248n+	1	3	7	9	11	13	21	25	27	29	33	37
		39	41	43	47	49	53	61	63	71	75	77	81
		83	85	87	91	95	97	99	103	111	113	115	117
		121	123	129	139	141	143	147	159	169	175	179	181
		183	189	191	193	197	203	213	225	229	231	233	243
65	260n+	1	7	9	29	33	37	47	49	51	57	61	63
		67	69	73	79	81	83	93	97	101	121	123	129
		131	137	139	159	163	167	177	179	181	187	191	193
		197	199	203	209	211	213	223	227	231	251	253	259
-65	260n+	1	3	9	11	19	23	27	29	31	33	37	43
		49	57	59	61	69	71	73	81	87	93	97	99
		101	103	107	111	119	121	127	129	137	147	151	171
		177	181	183	193	197	207	209	211	219	239	243	253
66	264n+	1	5	13	17	19	25	31	41	43	49	53	59
		61	65	85	95	97	103	109	125	139	155	161	167
		169	179	199	203	205	211	215	221	223	233	239	245
		247	251	259	263								
-66	264n+	1	5	7	13	17	23	25	35	41	47	49	53
		61	65	67	71	79	83	85	91	97	107	109	115
		119	125	127	131	151	161	163	169	175	191	205	221
		227	233	235	245								
67	268n+	1	3	7	9	11	17	21	25	27	29	31	33
		37	43	49	51	63	65	73	75	77	79	81	87
		89	93	95	99	111	115	119	121	129	139	147	149
		153	157	169	173	175	179	181	187	189	191	193	195
		203	205	217	219	225	231	235	237	239	241	243	247
		251	257	259	261	265	267						

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
-67	268n+	1	9	15	17	19	21	23	25	29	33	35	37
		39	47	49	55	59	65	71	73	77	81	83	89
		91	93	103	107	121	123	127	129	131	135	143	149
		151	153	155	157	159	163	167	169	171	173	181	183
		189	193	199	205	207	211	215	217	223	225	227	237
		241	255	257	261	263	265						
69	276n+	1	5	11	13	17	25	31	49	53	55	65	73
		83	85	89	107	113	121	125	127	133	137	139	143
		149	151	155	163	169	187	191	193	203	211	221	223
		227	245	251	259	263	265	271	275				
-69	276n+	1	5	7	13	17	19	25	35	43	47	49	53
		59	65	67	71	73	79	85	89	91	95	103	113
		119	121	125	131	133	137	149	167	169	175	179	193
		199	215	221	235	239	245	247	265				
70	280n+	1	3	9	11	17	23	27	31	33	37	51	53
		61	69	73	81	83	93	97	99	101	111	121	127
		153	159	169	179	181	183	187	197	199	207	211	219
		227	229	243	247	249	253	257	263	269	271	277	279
-70	280n+	1	9	17	19	33	37	39	43	47	53	59	61
		67	69	71	73	79	81	87	93	97	101	103	107
		121	123	131	139	143	151	153	163	167	169	171	181
		191	197	223	229	239	249	251	253	257	267	269	277
71	284n+	1	5	7	9	11	23	25	29	31	35	37	39
		45	47	49	51	55	57	59	63	67	73	77	81
		89	99	101	109	115	121	123	125	127	129	139	145
		155	157	159	161	163	169	175	183	185	195	203	207
		211	217	221	225	227	229	233	235	237	239	245	247
		249	253	255	259	261	273	275	277	279	283		
-71	284n+	1	3	5	9	15	19	25	27	29	37	43	45
		49	57	73	75	77	79	81	83	87	89	91	95
		101	103	107	109	111	119	121	125	129	131	135	143
		145	147	151	157	161	167	169	171	179	185	187	191
		199	215	217	219	221	223	225	229	231	233	237	243
		245	249	251	253	261	263	267	271	273	277		
73	292n+	1	3	9	19	23	25	27	35	37	41	49	55
		57	61	65	67	69	71	75	77	79	81	85	89
		91	97	105	109	111	119	121	123	127	137	143	145
		147	149	155	165	169	171	173	181	183	187	195	201
		203	207	211	213	215	217	221	223	225	227	231	235
		237	243	251	255	257	265	267	269	273	283	289	291

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
-73	292n+	1	7	9	11	15	25	31	37	39	41	43	47
		49	51	57	59	61	63	65	69	77	81	83	85
		87	89	95	97	99	103	105	107	109	115	121	131
		135	137	139	145	149	151	159	163	165	167	169	173
		175	179	181	191	199	201	213	217	221	225	237	239
		247	257	259	263	265	269	271	273	275	279	287	289
74	296n+	1	5	7	9	13	19	25	29	33	35	41	43
		45	47	49	51	59	61	63	65	69	71	73	81
		91	93	95	109	117	121	125	127	131	133	137	145
		151	159	163	165	169	171	175	179	187	201	203	205
		215	223	225	227	231	233	235	237	245	247	249	251
		253	255	261	263	267	271	277	283	287	289	291	295
-74	296n+	1	3	5	9	11	13	15	23	25	27	29	31
		33	39	41	45	49	55	61	65	67	69	73	75
		79	81	83	87	93	99	103	107	109	115	117	119
		121	123	125	133	135	137	139	143	145	147	155	165
		167	169	183	191	195	199	201	205	207	211	219	225
		233	237	239	243	245	249	253	261	275	277	279	289
77	308n+	1	9	13	15	17	19	23	25	37	41	53	61
		67	71	73	81	83	87	93	101	113	117	129	131
		135	137	139	141	145	153	155	163	167	169	171	173
		177	179	191	195	207	215	221	225	227	235	237	241
		247	255	267	271	283	285	289	291	293	295	299	307
-77	308n+	1	3	9	13	17	25	27	31	37	39	41	43
		47	51	53	59	61	73	75	79	81	93	95	101
		103	107	111	113	115	117	123	127	129	137	141	145
		151	153	159	169	173	177	183	199	211	219	221	223
		225	237	239	241	243	251	263	279	285	289	293	303
78	312n+	1	7	11	23	25	29	31	37	41	43	49	53
		59	77	83	85	89	95	101	109	121	137	139	151
		161	173	175	191	203	211	217	223	227	229	235	253
		259	263	269	271	275	281	283	287	289	301	305	311
-78	312n+	1	19	25	29	35	37	41	47	49	53	55	67
		71	77	79	85	89	101	103	107	109	115	119	121
		127	131	137	155	161	163	167	173	179	187	199	215
		217	229	239	251	253	269	281	289	295	301	305	307
79	316n+	1	3	5	7	9	13	15	21	25	27	35	39
		43	45	47	49	59	63	65	71	73	75	81	89
		91	97	101	103	105	107	117	121	125	127	129	135
		139	141	147	169	175	177	181	187	189	191	195	199
		209	211	213	215	219	225	227	235	241	243	245	251
		253	257	267	269	271	273	277	281	289	291	295	301
		303	307	309	311	313	315						

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
-79	316n+	1	5	9	11	13	19	21	23	25	31	45	49
		51	55	65	67	73	81	83	87	89	95	97	99
		101	105	111	115	117	119	121	123	125	129	131	141
		143	151	155	159	163	167	169	171	177	179	181	183
		189	203	207	209	213	223	225	231	239	241	245	247
		253	255	257	259	263	269	273	275	277	279	281	283
		287	289	299	301	309	313						
82	328n+	1	3	9	11	13	19	23	25	27	29	31	33
		35	39	49	53	57	67	69	73	75	81	85	87
		93	99	101	103	105	109	113	117	119	121	127	143
		147	149	157	159	169	171	179	181	185	201	207	209
		211	215	219	223	225	227	229	235	241	243	247	253
		255	259	261	271	275	279	289	293	295	297	299	301
		303	305	309	315	317	319	325	327				
-82	328n+	1	7	9	13	15	25	29	33	43	47	49	51
		53	55	57	59	63	69	71	73	79	81	83	85
		91	93	95	101	105	107	109	111	113	115	117	121
		131	135	139	149	151	155	157	163	167	169	175	181
		183	185	187	191	195	199	201	203	209	225	229	231
		239	241	251	253	261	263	267	283	289	291	293	297
		301	305	307	309	311	317	323	325				
83	332n+	1	9	15	17	19	21	25	29	33	35	37	39
		41	43	47	49	55	61	65	67	69	71	77	79
		81	91	93	103	107	109	113	115	121	135	139	143
		153	155	159	161	163	169	171	173	177	179	189	193
		197	211	217	219	223	225	229	239	241	251	253	255
		261	263	265	267	271	277	283	285	289	291	293	295
		297	299	303	307	311	313	315	317	323	331		
-83	332n+	1	3	7	9	11	17	21	23	25	27	29	31
		33	37	41	49	51	59	61	63	65	69	75	77
		81	87	93	95	99	109	111	113	119	121	123	127
		131	147	151	153	161	167	169	173	175	177	183	187
		189	191	193	195	197	199	203	207	215	217	225	227
		229	231	235	241	243	247	253	259	261	265	275	277
		279	285	287	289	293	297	313	317	319	327		
85	340n+	1	3	7	9	19	21	23	27	37	49	57	59
		63	69	73	81	89	97	101	107	111	113	121	133
		143	147	149	151	161	163	167	169	171	173	177	179
		189	191	193	197	207	219	227	229	233	239	243	251
		259	267	271	277	281	283	291	303	313	317	319	321
		331	333	337	339								

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
-85	340n+	1	9	11	21	31	37	39	43	47	49	57	67
		69	71	73	79	81	83	87	89	91	97	99	101
		103	113	121	123	127	131	133	139	149	159	161	169
		173	177	183	189	193	197	199	203	211	223	229	231
		233	247	263	277	279	281	287	299	307	311	313	317
		321	327	333	337								
86	344n+	1	5	7	9	11	17	25	29	35	37	39	41
		45	49	55	57	59	61	63	67	69	71	77	81
		83	85	93	97	99	107	119	121	125	139	141	145
		149	151	153	157	159	169	175	185	187	191	193	195
		199	203	205	219	223	225	237	245	247	251	259	261
		263	267	273	275	277	281	283	285	287	289	295	299
		303	305	307	309	315	319	327	333	335	337	339	343
-86	344n+	1	3	5	9	15	17	19	23	25	27	29	31
		37	41	45	47	49	51	57	61	69	75	77	79
		81	85	87	91	93	95	97	103	111	115	121	123
		125	127	131	135	141	143	145	147	149	153	155	157
		163	167	169	171	179	183	185	193	205	207	211	225
		227	231	235	237	239	243	245	255	261	271	273	277
		279	281	285	289	291	305	309	311	323	331	333	337
87	348n+	1	13	17	19	23	25	31	35	41	43	49	55
		59	71	77	79	83	89	101	107	109	113	121	127
		137	163	167	169	179	181	185	211	221	227	235	239
		241	247	259	265	269	271	277	289	293	299	305	307
		313	317	323	325	329	331	335	347				
-87	348n+	1	7	11	13	17	25	41	47	49	67	77	89
		91	95	101	103	109	113	115	119	121	131	137	139
		143	151	155	169	175	181	185	187	191	199	215	221
		223	241	251	263	265	269	275	277	283	287	289	293
		295	305	311	313	317	325	329	343				
89	356n+	1	5	9	11	17	21	25	39	45	47	49	53
		55	57	67	69	71	73	79	81	85	87	91	93
		97	99	105	107	109	111	121	123	125	129	131	133
		139	153	157	161	167	169	173	177	179	183	187	189
		195	199	203	217	223	225	227	231	233	235	245	247
		249	251	257	259	263	265	269	271	275	277	283	285
		287	289	299	301	303	307	309	311	317	331	335	339
		345	347	351	355								
-89	356n+	1	3	5	7	9	15	17	19	21	23	25	27
		31	35	43	45	49	51	53	57	59	63	69	73
		75	81	83	85	93	95	97	103	105	109	115	119
		121	125	127	129	133	135	143	147	151	153	155	157
		159	161	163	169	171	173	175	177	189	191	207	211
		215	217	219	225	233	239	243	245	249	255	257	265
		269	277	279	285	289	291	295	301	309	315	317	319
		323	327	343	345								

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

91	364n+	1	3	5	9	11	15	25	27	29	33	41	45
		53	55	67	71	73	75	81	87	89	97	99	103
		113	121	123	125	131	135	139	145	151	159	163	165
		199	201	205	213	219	225	229	233	239	241	243	251
		261	265	267	275	277	283	289	291	293	297	309	311
		319	323	331	335	337	339	349	353	355	359	361	363
-91	364n+	1	5	9	19	23	25	29	31	33	41	43	45
		47	51	53	59	73	79	81	83	89	95	97	107
		111	113	115	121	125	127	145	155	165	167	171	179
		183	187	191	201	205	207	211	213	215	223	225	227
		229	233	235	241	255	261	263	265	271	277	279	289
		293	295	297	303	307	309	327	337	347	349	353	361
93	372n+	1	7	11	17	19	23	25	29	49	53	65	67
		77	83	89	97	103	109	119	121	133	137	157	161
		163	167	169	175	179	185	187	193	197	203	205	209
		211	215	235	239	251	253	263	269	275	283	289	295
		305	307	319	323	343	347	349	353	355	361	365	371
-93	372n+	1	17	25	29	35	43	47	49	53	55	59	65
		71	77	79	89	91	95	97	107	109	115	121	127
		131	133	137	139	143	151	157	161	169	185	191	193
		197	199	205	209	223	227	247	253	259	269	271	287
		289	299	305	311	331	335	349	353	359	361	365	367
94	376n+	1	3	5	9	13	15	17	23	25	27	29	31
		39	45	49	51	59	65	69	75	77	81	83	85
		87	89	93	97	109	115	117	121	125	127	131	133
		135	145	147	151	153	155	167	169	177	181	195	199
		207	209	221	223	225	229	231	241	243	245	249	251
		255	259	261	267	279	283	287	289	291	293	295	299
		301	307	311	317	325	327	331	337	345	347	349	351
		353	359	361	363	367	371	373	375				
-94	376n+	1	5	7	9	11	13	17	19	25	29	35	43
		45	49	55	63	65	67	69	71	77	79	81	85
		89	91	93	95	97	99	103	107	109	111	117	119
		121	123	125	133	139	143	145	153	159	163	169	171
		175	177	179	181	183	187	191	203	209	211	215	219
		221	225	227	229	239	241	245	247	249	261	263	271
		275	289	293	301	303	315	317	319	323	325	335	337
		339	343	345	349	353	355	361	373				
95	380n+	1	7	9	13	23	31	33	37	43	47	49	51
		53	59	61	63	71	79	81	83	87	91	97	101
		113	117	121	123	149	151	161	163	169	173	179	187
		193	201	207	211	217	219	229	231	257	259	263	267
		279	283	289	293	297	299	301	309	317	319	321	327
		329	331	333	337	343	347	349	357	367	371	373	379

FORMS OF PRIMES HAVING A GIVEN QUADRATIC RESIDUE

RESIDUE		FORMS OF PRIMES											
-95	380n+	1	3	9	11	13	27	33	37	39	49	53	61
		67	81	97	99	101	103	107	111	113	117	119	121
		127	131	139	143	147	149	159	161	167	169	173	183
		191	193	199	201	203	217	223	227	229	239	243	251
		257	271	287	289	291	293	297	301	303	307	309	311
		317	321	329	333	337	339	349	351	357	359	363	373
97	388n+	1	3	9	11	25	27	31	33	35	43	47	49
		53	61	65	73	75	79	81	85	89	91	93	95
		99	101	103	105	109	113	115	119	121	129	133	141
		145	147	151	159	161	163	167	169	183	185	191	193
		195	197	203	205	219	221	225	227	229	237	241	243
		247	255	259	267	269	273	275	279	283	285	287	289
		293	295	297	299	303	307	309	313	315	323	327	335
		339	341	345	353	355	357	361	363	377	379	385	387
-97	388n+	1	7	9	15	19	23	25	33	39	49	51	53
		55	59	61	63	65	67	71	73	81	83	85	87
		89	93	101	105	107	109	111	113	121	123	127	129
		131	133	135	139	141	143	145	155	161	169	171	175
		179	185	187	193	197	199	205	207	211	215	221	223
		225	229	231	235	237	239	241	251	263	269	271	273
		285	289	293	297	309	311	313	319	331	341	343	345
		347	351	353	357	359	361	367	371	375	377	383	385

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
-1	4n+	3											
2	8n+	3	5										
-2	8n+	5	7										
3	12n+	5	7										
-3	12n+	5	11										
5	20n+	3	7	13	17								
-5	20n+	11	13	17	19								
6	24n+	7	11	13	17								
-6	24n+	13	17	19	23								
7	28n+	5	11	13	15	17	23						
-7	28n+	3	5	13	17	19	27						
10	40n+	7	11	17	19	21	23	29	33				
-10	40n+	3	17	21	27	29	31	33	39				
11	44n+	3	13	15	17	21	23	27	29	31	41		
-11	44n+	7	13	17	19	21	29	35	39	41	43		
13	52n+	5	7	11	15	19	21	31	33	37	41	45	47
-13	52n+	3	5	21	23	27	33	35	37	41	43	45	51
14	56n+	3	15	17	19	23	27	39	33	37	39	41	53
-14	56n+	11	17	29	31	33	37	41	43	47	51	53	55
15	60n+	13	19	23	29	31	37	41	47				
-15	60n+	7	11	13	29	37	41	43	59				
17	68n+	3	5	7	11	23	27	29	31	37	39	41	45
		57	61	63	65								
-17	68n+	5	15	19	29	35	37	41	43	45	47	55	57
		59	61	65	67								
19	76n+	7	11	13	21	23	29	33	35	37	39	41	43
		47	53	55	63	65	69						
-19	76n+	3	13	15	21	27	29	31	33	37	41	51	53
		59	65	67	69	71	75						
21	84n+	11	13	19	23	29	31	53	55	61	65	71	73
-21	84n+	13	29	43	47	53	59	61	65	67	73	79	83
22	88n+	5	15	17	19	23	31	35	37	41	43	45	47
		51	53	57	65	69	71	73	83				
-22	88n+	3	5	7	17	27	37	39	41	45	53	57	59
		63	65	67	69	73	75	79	87				
23	92n+	3	5	17	21	27	31	33	35	37	39	45	47
		53	55	57	59	61	65	71	75	87	89		
-23	92n+	5	7	11	15	17	19	21	33	37	43	45	51
		53	57	61	63	65	67	79	83	89	91		

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
26	104n+	3	7	15	27	29	31	33	35	41	43	47	51
		53	57	61	63	69	71	73	75	77	89	97	101
-26	104n+	11	19	23	29	33	41	53	55	57	59	61	67
		69	73	77	79	83	87	89	95	97	99	101	103
29	116n+	3	11	15	17	19	21	27	31	37	39	41	43
		47	55	61	69	73	75	77	79	85	89	95	97
		99	101	105	113								
-29	116n+	7	17	21	23	35	37	41	51	59	61	63	67
		69	71	73	77	83	85	89	91	97	101	103	105
		107	111	113	115								
30	120n+	11	23	31	41	43	47	53	59	61	67	73	77
		79	89	97	109								
-30	120n+	7	19	41	53	61	71	73	77	83	89	91	97
		103	107	109	119								
31	124n+	7	13	17	19	21	29	35	37	39	47	51	53
		57	59	61	63	65	67	71	73	77	85	87	89
		95	103	105	107	111	117						
-31	124n+	3	11	13	15	17	21	23	27	29	37	43	53
		55	57	61	65	73	75	77	79	83	85	89	91
		99	105	115	117	119	123						
33	132n+	5	7	13	19	23	43	47	53	59	61	71	73
		79	85	89	109	113	119	125	127				
-33	132n+	5	13	31	35	53	61	67	73	83	85	89	91
		95	103	107	109	113	115	125	131				
34	136n+	7	13	19	21	23	31	35	39	41	43	53	57
		59	63	65	67	69	71	73	77	79	83	93	95
		97	101	105	113	115	117	123	129				
-34	136n+	3	11	13	15	21	27	41	47	53	55	57	65
		69	73	75	77	87	91	93	97	99	101	103	105
		107	111	113	117	127	129	131	135				
35	140n+	3	11	27	37	39	41	47	51	53	57	61	69
		71	79	83	87	89	93	99	101	103	113	129	137
-35	140n+	19	23	31	37	41	43	53	57	59	61	67	69
		89	93	101	107	111	113	123	127	129	131	137	139
37	148n+	5	13	15	17	19	23	29	31	35	39	43	45
		51	55	57	59	61	69	79	87	89	91	93	97
		103	105	109	113	117	119	125	129	131	133	135	143
-37	148n+	3	5	7	11	13	17	27	29	45	47	57	61
		63	67	69	71	75	83	89	93	95	97	99	105
		107	109	113	115	117	123	125	127	129	133	139	147

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
38	152n+	3	5	7	23	27	33	39	41	45	47	51	55
		59	61	63	65	67	75	77	85	87	89	91	93
		97	101	105	107	111	113	119	125	129	145	147	149
-38	152n+	5	11	15	31	33	35	41	43	45	61	65	71
		77	79	83	85	89	93	97	99	101	103	105	113
		115	123	125	127	129	131	135	139	143	145	149	151
39	156n+	11	17	29	37	43	47	53	55	59	71	73	77
		79	83	85	97	101	103	109	113	119	127	139	145
-39	156n+	7	17	19	23	29	31	35	37	53	67	73	77
		85	95	97	101	107	109	113	115	131	145	151	155
41	164n+	3	7	11	13	15	17	19	27	29	35	47	53
		55	63	65	67	69	71	75	79	85	89	93	95
		97	99	101	109	111	117	129	135	137	145	147	149
		151	153	157	161								
-41	164n+	13	17	23	29	31	39	43	51	53	59	65	69
		83	85	87	89	91	93	97	101	103	107	109	115
		117	119	127	129	131	137	139	143	145	149	153	155
		157	159	161	163								
42	168n+	5	23	31	37	43	55	59	65	67	71	73	83
		85	95	97	101	103	109	113	125	131	137	145	163
-42	168n+	5	11	19	37	47	65	73	79	85	97	101	107
		109	113	115	125	127	137	139	143	145	151	155	167
43	172n+	5	11	15	23	29	31	33	35	37	45	47	59
		61	65	67	69	73	77	79	83	85	87	89	93
		95	99	103	105	107	111	113	125	127	135	137	139
		141	143	149	157	161	167						
-43	172n+	3	5	7	19	27	29	33	37	39	45	51	55
		61	63	65	69	71	73	75	77	85	89	91	93
		105	113	115	119	123	125	131	137	141	147	149	151
		155	157	159	161	163	171						
46	184n+	11	13	17	19	29	31	33	39	43	47	51	55
		57	65	67	71	77	83	85	87	89	91	93	95
		97	99	101	107	113	117	119	127	129	133	137	141
		145	151	153	155	165	167	171	173				
-46	184n+	3	7	13	15	17	27	29	33	35	57	59	63
		65	75	77	79	85	89	93	97	101	103	111	113
		117	123	129	131	133	135	137	139	141	143	145	147
		153	159	163	165	173	175	179	183				

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
47	188n+	3	5	7	13	27	29	33	41	45	51	55	57
		59	63	69	71	73	75	77	79	83	85	93	95
		103	105	109	111	113	115	117	119	125	129	131	133
		137	143	147	155	159	161	175	181	183	185		
-47	188n+	5	11	13	15	19	23	29	31	33	35	39	41
		43	45	57	67	69	73	77	85	87	91	93	99
		105	107	109	113	117	123	125	127	129	133	135	137
		139	151	161	163	167	171	179	181	185	187		
51	204n+	11	19	23	37	43	53	55	61	67	71	73	77
		89	95	97	101	103	107	109	115	127	131	133	137
		143	149	151	161	167	181	185	193				
-51	204n+	7	31	35	37	47	53	59	61	73	77	79	83
		89	91	97	101	109	133	137	139	149	155	161	163
		175	179	181	185	191	193	199	203				
53	212n+	3	5	19	21	23	27	31	33	35	39	41	45
		51	55	61	65	67	71	73	75	79	83	85	87
		101	103	109	111	125	127	129	133	137	139	141	145
		147	151	157	161	167	171	173	177	179	181	185	189
		191	193	207	209								
-53	212n+	5	7	11	15	21	33	41	43	45	47	59	61
		63	65	73	85	91	95	99	101	107	109	115	119
		123	125	129	131	133	135	137	141	143	145	155	157
		161	163	173	175	177	181	183	185	187	189	193	195
		199	203	209	211								
55	220n+	7	21	29	31	37	41	43	53	59	61	63	71
		83	87	91	93	97	101	107	109	111	113	119	123
		127	129	133	137	149	157	159	161	167	177	179	183
		189	191	199	213								
-55	220n+	3	19	21	23	27	29	37	39	41	47	51	53
		61	67	79	93	97	101	103	109	113	129	131	133
		137	139	147	149	151	157	161	163	171	177	189	203
		207	211	213	219								
57	228n+	5	11	13	17	23	31	35	37	47	67	77	79
		83	91	97	101	103	109	119	125	127	131	137	145
		149	151	161	181	191	193	197	205	211	215	217	223
-57	228n+	5	7	13	17	37	43	55	59	71	77	97	101
		107	109	115	125	137	139	143	145	149	155	161	163
		167	175	179	181	187	193	197	199	203	205	217	227

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
58	232n+	5	13	15	17	31	35	39	41	45	47	51	53
		55	59	67	73	79	83	89	91	93	95	97	105
		107	109	113	115	117	119	123	125	127	135	137	139
		141	143	149	153	159	165	173	177	179	181	185	187
		191	193	197	201	215	217	219	227				
-58	232n+	3	5	7	11	13	17	19	23	27	41	43	45
		53	63	71	73	75	89	93	97	99	103	105	109
		111	113	117	125	131	137	141	147	149	151	153	155
		163	165	167	171	173	175	177	181	183	185	193	195
		197	199	201	207	211	217	223	231				
59	236n+	3	7	13	15	19	27	33	35	37	51	61	63
		65	69	71	73	75	77	79	87	89	93	95	97
		101	107	109	113	117	119	123	127	129	135	139	141
		143	147	149	157	159	161	163	165	167	171	173	175
		185	199	201	203	209	217	221	223	229	233		
-59	236n+	11	13	23	31	33	37	39	43	47	55	61	65
		67	69	73	77	83	89	91	93	97	99	101	103
		109	111	113	115	117	129	131	141	149	151	155	157
		161	165	173	179	183	185	187	191	195	201	207	209
		211	215	217	219	221	227	229	231	233	235		
61	244n+	7	11	17	21	23	29	31	33	35	37	43	51
		53	55	59	63	67	69	71	79	85	87	89	91
		93	99	101	105	111	115	129	133	139	143	145	151
		153	155	157	159	165	173	175	177	181	185	189	191
		193	201	207	209	211	213	215	221	223	227	233	237
-61	244n+	3	15	17	19	21	27	29	33	37	39	47	53
		69	75	83	85	89	93	95	101	103	105	107	119
		123	127	129	131	133	135	145	147	153	157	163	165
		167	171	173	177	179	181	185	187	189	193	195	199
		201	203	209	213	219	221	231	233	235	237	239	243
62	248n+	3	5	7	11	17	27	39	43	45	47	57	63
		65	69	71	73	75	83	87	89	91	95	99	101
		103	105	109	111	115	123	125	133	137	139	143	145
		147	149	153	157	159	161	165	173	175	177	179	183
		185	191	201	203	205	209	221	231	237	241	243	245
-62	248n+	5	15	17	19	23	35	45	51	55	57	59	65
		67	69	73	79	89	101	105	107	109	119	125	127
		131	133	135	137	145	149	151	153	157	161	163	165
		167	171	173	177	185	187	195	199	201	205	207	209
		211	215	219	221	223	227	235	237	239	241	245	247

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
65	260n+	3	11	17	19	21	23	27	31	41	43	53	59
		71	77	87	89	99	103	107	109	111	113	119	127
		133	141	147	149	151	153	157	161	171	173	183	189
		201	207	217	219	229	233	237	239	241	243	249	257
-65	260n+	7	17	21	41	47	51	53	63	67	77	79	83
		89	109	113	123	131	133	139	141	149	153	157	159
		161	163	167	173	179	187	189	191	199	201	203	211
		217	223	227	229	231	233	237	241	249	251	257	259
66	264n+	7	23	29	35	37	47	67	71	73	79	83	89
		91	101	107	113	115	119	127	131	133	137	145	149
		151	157	163	173	175	181	185	191	193	197	217	227
		229	235	241	257								
-66	264n+	19	29	31	37	43	59	73	89	95	101	103	113
		133	137	139	145	149	155	157	167	173	179	181	185
		193	197	199	203	211	215	217	223	229	239	241	247
		251	257	259	263								
67	268n+	5	13	15	19	23	35	39	41	45	47	53	55
		57	59	61	69	71	83	85	91	97	101	103	105
		107	109	113	117	123	125	127	131	133	135	137	141
		143	145	151	155	159	161	163	165	167	171	177	183
		185	197	199	207	209	211	213	215	221	223	227	229
		233	245	249	253	255	263						
-67	268n+	3	5	7	11	13	27	31	41	43	45	51	53
		57	61	63	69	75	79	85	87	95	97	99	101
		105	109	111	113	115	117	119	125	133	137	139	141
		145	147	161	165	175	177	179	185	187	191	195	197
		203	209	213	219	221	229	231	233	235	239	243	245
		247	249	251	253	259	267						
69	276n+	7	19	29	35	37	41	43	47	59	61	67	71
		77	79	91	95	97	101	103	109	119	131	145	157
		167	173	175	179	181	185	197	199	205	209	215	217
		229	233	235	239	241	247	257	269				
-69	276n+	11	29	31	37	41	55	61	77	83	97	101	107
		109	127	139	143	145	151	155	157	163	173	181	185
		187	191	197	203	205	209	211	217	223	227	229	233
		241	251	257	259	263	269	271	275				
70	280n+	13	19	29	39	41	43	47	57	59	67	71	79
		87	89	103	107	109	113	117	123	129	131	137	139
		141	143	149	151	157	163	167	171	173	177	191	193
		201	209	213	221	223	233	237	239	241	251	261	267

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
-70	280n+	3	11	13	23	27	29	31	41	51	57	83	89
		99	109	111	113	117	127	129	137	141	149	157	159
		173	177	179	183	187	193	199	201	207	209	211	213
		219	221	227	233	237	241	243	247	261	263	271	279
71	284n+	3	13	15	17	19	21	27	33	41	43	53	61
		65	69	75	79	83	85	87	91	93	95	97	103
		105	107	111	113	117	119	131	133	135	137	141	143
		147	149	151	153	165	167	171	173	177	179	181	187
		189	191	193	197	199	201	205	209	215	219	223	231
		241	243	251	257	263	265	267	269	271	281		
-71	284n+	7	11	13	17	21	23	31	33	35	39	41	47
		51	53	55	59	61	63	65	67	69	85	93	97
		99	105	113	115	117	123	127	133	137	139	141	149
		153	155	159	163	165	173	175	177	181	183	189	193
		195	197	201	203	205	207	209	211	227	235	239	241
		247	255	257	259	265	269	275	279	281	283		
73	292n+	5	7	11	13	15	17	21	29	31	33	39	43
		45	47	51	53	59	63	83	87	93	95	99	101
		103	107	113	115	117	125	129	131	133	135	139	141
		151	153	157	159	161	163	167	175	177	179	185	189
		191	193	197	199	205	209	229	233	239	241	245	247
		249	253	259	261	263	271	275	277	279	281	285	287
-73	292n+	3	5	13	17	19	21	23	27	29	33	35	45
		53	55	67	71	75	79	91	93	101	111	113	117
		119	123	125	127	129	133	141	143	147	153	155	157
		161	171	177	183	185	187	189	193	195	197	203	205
		207	209	211	215	223	227	229	231	233	235	241	243
		245	249	251	253	255	261	267	277	281	283	285	291
74	296n+	3	11	15	17	21	23	27	31	39	53	55	57
		67	75	77	79	83	85	87	89	97	99	101	103
		105	107	113	115	119	123	129	135	139	141	143	147
		149	153	155	157	161	167	173	177	181	183	189	191
		193	195	197	199	207	209	211	213	217	219	221	229
		239	241	243	257	265	269	273	275	279	281	285	293
-74	296n+	7	17	19	21	35	43	47	51	53	57	59	63
		71	77	85	89	91	95	97	101	105	113	127	129
		131	141	149	151	153	157	159	161	163	171	173	175
		177	179	181	187	189	193	197	203	209	213	215	217
		221	223	227	229	231	235	241	247	251	255	257	263
		265	267	269	271	273	281	283	285	287	291	293	295

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
77	308n+	3	5	27	29	31	39	43	45	47	51	57	59
		65	69	75	79	85	89	95	97	103	107	109	111
		115	123	125	127	149	151	157	159	181	183	185	193
		197	199	201	205	211	213	219	223	229	233	239	243
		249	251	257	261	263	265	269	277	279	281	303	305
-77	308n+	5	15	19	23	29	45	57	65	67	69	71	83
		85	87	89	97	109	125	131	135	139	149	155	157
		163	167	171	179	181	185	191	193	195	197	201	205
		207	213	215	227	229	233	235	247	249	255	257	261
		265	267	269	271	277	281	283	291	295	299	305	307
78	312n+	5	17	19	35	47	55	61	67	71	73	79	97
		103	107	113	115	119	125	127	131	133	145	149	155
		157	163	167	179	181	185	187	193	197	199	205	209
		215	233	239	241	245	251	257	265	277	293	295	307
-78	312n+	5	7	11	17	23	31	43	59	61	73	83	95
		97	113	125	133	139	145	149	151	157	175	181	185
		191	193	197	203	205	209	211	223	227	233	235	241
		245	257	259	263	265	271	275	277	283	287	293	311
79	316n+	11	17	19	23	29	31	33	37	41	51	53	55
		57	61	67	69	77	83	85	87	93	95	99	109
		111	113	115	119	123	131	133	137	143	145	149	151
		153	155	157	159	161	163	165	167	171	173	179	183
		185	193	197	201	203	205	207	217	221	223	229	231
		233	239	247	249	255	259	261	263	265	275	279	283
		285	287	293	297	299	305						
-79	316n+	3	7	15	17	27	29	33	35	37	39	41	43
		47	53	57	59	61	63	69	71	75	77	85	91
		93	103	107	109	113	127	133	135	137	139	145	147
		149	153	157	161	165	173	175	185	187	191	193	195
		197	199	201	205	211	215	217	219	221	227	229	233
		235	243	249	251	261	265	267	271	285	291	293	295
		297	303	305	307	311	315						
82	328n+	5	7	15	17	21	37	43	45	47	51	55	59
		61	63	65	71	77	79	83	89	91	95	97	107
		111	115	125	129	131	133	135	137	139	141	145	151
		153	155	161	163	165	167	173	175	177	183	187	189
		191	193	195	197	199	203	213	217	221	231	233	237
		239	245	249	251	257	263	265	267	269	273	277	281
		283	285	291	307	311	313	321	323				

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
-82	328n+	3	5	11	17	19	21	23	27	31	35	37	39
		45	61	65	67	75	77	87	89	97	99	103	119
		125	127	129	133	137	141	143	145	147	153	159	161
		165	171	173	177	179	189	193	197	207	211	213	215
		217	219	221	223	227	233	235	237	243	245	247	249
		255	257	259	265	269	271	273	275	277	279	281	285
		295	299	303	313	315	319	321	327				
83	332n+	3	5	7	11	13	23	27	31	45	51	53	57
		59	63	73	75	85	87	89	95	97	99	101	105
		111	117	119	123	125	127	129	131	133	137	141	145
		147	149	151	157	165	167	175	181	183	185	187	191
		195	199	201	203	205	207	209	213	215	221	227	231
		233	235	237	243	245	247	257	259	269	273	275	279
		281	287	301	305	309	319	321	325	327	329		
-83	332n+	5	13	15	19	35	39	43	45	47	53	55	57
		67	71	73	79	85	89	91	97	101	103	105	107
		115	117	125	129	133	135	137	139	141	143	145	149
		155	157	159	163	165	171	179	181	185	201	205	209
		211	213	219	221	223	233	237	239	245	251	255	257
		263	267	269	271	273	281	283	291	295	299	301	303
		305	307	309	311	315	321	323	325	329	331		
85	340n+	11	13	29	31	33	39	41	43	47	53	61	67
		71	77	79	83	87	91	93	99	103	109	117	123
		127	129	131	137	139	141	157	159	181	183	199	201
		203	209	211	213	217	223	231	237	241	247	249	253
		257	261	263	269	273	279	287	293	297	299	301	307
		309	311	327	329								
-85	340n+	3	7	13	19	23	27	29	33	41	53	59	61
		63	77	93	107	109	111	117	129	137	141	143	147
		151	157	163	167	171	179	181	191	201	207	209	213
		217	219	227	237	239	241	243	249	251	253	257	259
		261	267	269	271	273	283	291	293	297	301	303	309
		319	329	331	339								
86	344n+	3	13	15	19	21	23	27	31	33	47	51	53
		65	73	75	79	87	89	91	95	101	103	105	109
		111	113	115	117	123	127	131	133	135	137	143	147
		155	161	163	165	167	171	173	177	179	181	183	189
		197	201	207	209	211	213	217	221	227	229	231	233
		235	239	241	243	249	253	255	257	265	269	271	279
		291	293	297	311	313	317	321	323	325	329	331	341

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
-86	344n+	7	11	13	21	33	35	39	53	55	59	63	65
		67	71	73	83	89	99	101	105	107	109	113	117
		119	133	137	139	151	159	161	165	173	175	177	181
		187	189	191	195	197	199	201	203	209	213	217	219
		221	223	229	233	241	247	249	251	253	257	259	263
		265	267	269	275	283	287	293	295	297	299	303	307
		313	315	317	319	321	325	327	329	335	339	341	343
87	348n+	5	7	11	37	47	53	61	65	67	73	85	91
		95	97	103	115	119	125	131	133	139	143	149	151
		155	157	161	173	175	187	191	193	197	199	205	209
		215	217	223	229	233	245	251	253	257	263	275	281
		283	287	295	301	311	337	341	343				
-87	348n+	5	19	23	31	35	37	43	53	55	59	61	65
		71	73	79	83	85	97	107	125	127	133	149	157
		161	163	167	173	179	193	197	205	209	211	217	227
		229	233	235	239	245	247	253	257	259	271	281	299
		301	307	323	331	335	337	341	347				
89	356n+	3	7	13	15	19	23	27	29	31	33	35	37
		41	43	51	59	61	63	65	75	77	83	95	101
		103	113	115	117	119	127	135	137	141	143	145	147
		149	151	155	159	163	165	171	175	181	185	191	193
		197	201	205	207	209	211	213	215	219	221	229	237
		239	241	243	253	255	261	273	279	281	291	293	295
		297	305	313	315	319	321	323	325	327	329	333	337
		341	343	349	353								
-89	356n+	11	13	29	33	37	39	41	47	55	61	65	67
		71	77	79	87	91	99	101	107	111	113	117	123
		131	137	139	141	145	149	165	167	179	181	183	185
		187	193	195	197	199	201	203	205	209	213	221	223
		227	229	231	235	237	241	247	251	253	259	261	263
		271	273	275	281	283	287	293	297	299	303	305	307
		311	313	321	325	329	331	333	335	337	339	341	347
		349	351	353	355								
91	364n+	17	19	23	31	37	43	47	51	57	59	61	69
		79	83	85	93	95	101	107	109	111	115	127	129
		137	141	149	153	155	157	167	171	173	177	179	181
		183	185	187	191	193	197	207	209	211	215	223	227
		235	237	249	253	255	257	263	269	271	279	281	285
		295	303	305	307	313	317	321	327	333	341	345	347

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
-91	364n+	3	11	15	17	27	37	55	57	61	67	69	71
		75	85	87	93	99	101	103	109	123	129	131	135
		137	139	141	149	151	153	157	159	163	173	177	181
		185	193	197	199	209	219	237	239	243	249	251	253
		257	267	269	275	281	283	285	291	305	311	313	317
		319	321	323	331	333	335	339	341	345	355	359	363
93	372n+	5	13	35	37	41	43	47	55	59	61	71	73
		79	85	91	95	101	107	113	115	125	127	131	139
		143	145	149	151	173	181	191	199	221	223	227	229
		233	241	245	247	257	259	265	271	277	281	287	293
		299	301	311	313	317	325	329	331	335	337	359	367
-93	372n+	5	7	11	13	19	23	37	41	61	67	73	83
		85	101	103	113	119	125	145	149	163	167	173	175
		179	181	187	203	211	215	221	229	233	235	239	241
		245	251	257	263	265	275	277	281	283	293	295	301
		307	313	317	319	323	325	329	337	343	347	355	371
94	376n+	7	11	19	21	33	35	37	41	43	53	55	57
		61	63	67	71	73	79	91	95	99	101	103	105
		107	111	113	119	123	129	137	139	143	149	157	159
		161	163	165	171	173	175	179	183	185	187	189	191
		193	197	201	203	205	211	213	215	217	219	227	233
		237	239	247	253	257	263	265	269	271	273	275	277
		281	285	297	303	305	309	313	315	319	321	323	333
		335	339	341	343	355	357	365	369				
-94	376n+	3	15	21	23	27	31	33	37	39	41	51	53
		57	59	61	73	75	83	87	101	105	113	115	127
		129	131	135	137	147	149	151	155	157	161	165	167
		173	185	189	193	195	197	199	201	205	207	213	217
		223	231	233	237	243	251	253	255	257	259	265	267
		269	273	277	279	281	283	285	287	291	295	297	299
		305	307	309	311	313	321	327	331	333	341	347	351
		357	359	363	365	367	369	371	375				
95	380n+	3	11	17	21	27	29	39	41	67	69	73	77
		89	93	99	103	107	109	111	119	127	129	131	137
		139	141	143	147	153	157	159	167	177	181	183	189
		191	197	199	203	213	221	223	227	233	237	239	241
		243	249	251	253	261	269	271	273	277	281	287	291
		303	307	311	313	339	341	351	353	359	363	369	377

FORMS OF PRIMES HAVING A GIVEN QUADRATIC NON-RESIDUE

NON-RESIDUE		FORMS OF PRIMES											
-95	380n+	7	17	21	23	29	31	41	43	47	51	59	63
		69	71	73	77	79	83	87	89	91	93	109	123
		129	137	141	151	153	157	163	177	179	181	187	189
		197	207	211	213	219	221	231	233	237	241	249	253
		259	261	263	267	269	273	277	279	281	283	299	313
		319	327	331	341	343	347	353	367	369	371	377	379
97	388n+	5	7	13	15	17	19	21	23	29	37	39	41
		45	51	55	57	59	63	67	69	71	77	83	87
		107	111	117	123	125	127	131	135	137	139	143	149
		153	155	157	165	171	173	175	177	179	181	187	189
		199	201	207	209	211	213	215	217	223	231	233	235
		239	245	249	251	253	257	261	263	265	271	277	281
		301	305	311	317	319	321	325	329	331	333	337	343
		347	349	351	359	365	367	369	371	373	375	381	383
-97	388n+	3	5	11	13	17	21	27	29	31	35	37	41
		43	45	47	57	69	75	77	79	91	95	99	103
		115	117	119	125	137	147	149	151	153	157	159	163
		165	167	173	177	181	183	189	191	195	201	203	209
		213	217	219	227	233	243	245	247	249	253	255	257
		259	261	265	267	275	277	279	281	283	287	295	299
		301	303	305	307	315	317	321	323	325	327	329	333
		335	337	339	349	355	363	365	369	373	379	381	387

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
3	2											
5	2	3										
7	3	5										
11	2	6	7	8								
13	2	6	7	11								
17	3	5	6	7	10	11	12	14				
19	2	3	10	13	14	15						
23	5	7	10	11	14	15	17	19	20	21		
29	2	3	8	10	11	14	15	18	19	21	26	27
31	3	11	12	13	17	21	22	24				
37	2	5	13	15	17	18	19	20	22	24	32	35
41	6	7	11	12	13	15	17	19	22	24	26	28
	29	30	34	35								
43	3	5	12	18	19	20	26	28	29	30	33	34
47	5	10	11	13	15	19	20	22	23	26	29	30
	31	33	35	38	39	40	41	43	44	45		
53	2	3	5	8	12	14	18	19	20	21	22	26
	27	31	32	33	34	35	39	41	45	48	50	51
59	2	6	8	10	11	13	14	18	23	24	30	31
	32	33	34	37	38	39	40	42	43	44	47	50
	52	54	55	56								
61	2	6	7	10	17	18	26	30	31	35	43	44
	51	54	55	59								
67	2	7	11	12	13	18	20	28	31	32	34	41
	44	46	48	50	51	57	61	63				
71	7	11	13	21	22	28	31	33	35	42	44	47
	52	53	55	56	59	61	62	63	65	67	68	69
73	5	11	13	14	15	20	26	28	29	31	33	34
	39	40	42	44	45	47	53	58	59	60	62	68

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
79	3	6	7	28	29	30	34	35	37	39	43	47
	48	53	54	59	60	63	66	68	70	74	75	77
83	2	5	6	8	13	14	15	18	19	20	22	24
	32	34	35	39	42	43	45	46	47	50	52	53
	54	55	56	57	58	60	62	66	67	71	72	73
	74	76	79	80								
89	3	6	7	13	14	15	19	23	24	26	27	28
	29	30	31	33	35	38	41	43	46	48	51	54
	56	58	59	60	61	62	63	65	66	70	74	75
	76	82	83	86								
97	5	7	10	13	14	15	17	21	23	26	29	37
	38	39	40	41	56	57	58	59	60	68	71	74
	76	80	82	83	84	87	90	92				
101	2	3	7	8	11	12	15	18	26	27	28	29
	34	35	38	40	42	46	48	50	51	53	55	59
	61	63	66	67	72	73	74	75	83	86	89	90
	93	94	98	99								
103	5	6	11	12	20	21	35	40	43	44	45	48
	51	53	54	62	65	67	70	71	74	75	77	78
	84	85	86	87	88	96	99	101				
107	2	5	6	7	8	15	17	18	20	21	22	24
	26	28	31	32	38	43	45	46	50	51	54	55
	58	59	60	63	65	66	67	68	70	71	72	73
	74	77	78	80	82	84	88	91	93	94	95	96
	97	98	103	104								
109	6	10	11	13	14	18	24	30	37	39	40	42
	44	47	50	51	52	53	56	57	58	59	62	65
	67	69	70	72	79	85	91	95	96	98	99	103
113	3	5	6	10	12	17	19	20	21	23	24	27
	29	33	34	37	38	39	43	45	46	47	54	55
	58	59	66	67	68	70	74	75	76	79	80	84
	86	89	90	92	93	94	96	101	103	107	108	110
127	3	6	7	12	14	23	29	39	43	45	46	48
	53	55	56	57	58	65	67	78	83	85	86	91
	92	93	96	97	101	106	109	110	112	114	116	118
131	2	6	8	10	14	17	22	23	26	29	30	31
	37	40	50	54	56	57	66	67	72	76	82	83
	85	87	88	90	93	95	96	97	98	103	104	106
	110	111	115	116	118	119	120	122	124	126	127	128

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
137	3	5	6	12	13	20	21	23	24	26	27	29
	31	33	35	40	42	43	45	46	47	48	51	52
	53	54	55	57	58	62	66	67	70	71	75	79
	80	82	83	84	85	86	89	90	91	92	94	95
	97	102	104	106	108	110	111	113	114	116	117	124
	125	131	132	134								
139	2	3	12	15	17	18	19	21	22	26	32	40
	50	53	56	58	61	68	70	72	73	85	88	90
	92	93	98	101	102	104	108	109	110	111	114	115
	119	123	126	128	130	132	134	135				
149	2	3	8	10	11	12	13	14	15	18	21	23
	27	32	34	38	40	41	43	48	50	51	52	55
	56	57	58	59	60	62	65	66	70	71	72	74
	75	77	78	79	83	84	87	89	90	91	92	93
	94	97	98	99	101	106	108	109	111	115	117	122
	126	128	131	134	135	136	137	138	139	141	146	147
151	6	7	12	13	14	15	30	35	48	51	52	54
	56	61	63	71	77	82	89	93	96	102	104	106
	108	109	111	112	114	115	117	120	126	129	130	133
	134	140	141	146								
157	5	6	15	18	20	21	24	26	34	38	43	53
	55	60	61	62	63	66	69	70	72	73	74	77
	80	83	84	85	87	88	91	94	95	96	97	102
	104	114	119	123	131	133	136	137	139	142	151	152
163	2	3	7	11	12	18	19	20	29	32	42	44
	45	50	52	63	66	67	68	70	72	73	75	76
	79	80	82	89	92	94	101	103	106	107	108	109
	112	114	116	117	120	122	124	128	129	130	137	139
	147	148	149	153	154	159						
167	5	10	13	15	17	20	23	26	30	34	35	37
	39	40	41	43	45	46	51	52	53	55	59	60
	67	68	69	70	71	73	74	78	79	80	82	83
	86	90	91	92	95	101	102	103	104	105	106	109
	110	111	113	117	118	119	120	123	125	129	131	134
	135	136	138	139	140	142	143	145	146	148	149	151
	153	155	156	158	159	160	161	163	164	165		
173	2	3	5	7	8	11	12	17	18	19	20	26
	27	28	30	32	39	42	44	45	46	48	50	53
	58	59	61	62	63	65	66	68	69	70	71	72
	74	75	76	79	82	86	87	91	94	97	98	99
	101	102	103	104	105	107	108	110	111	112	114	115
	120	123	125	127	128	129	131	134	141	143	145	146
	147	153	154	155	156	161	162	165	166	168	170	171

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
179	2	6	7	8	10	11	18	21	23	24	26	28
	30	32	33	34	35	37	38	40	41	44	50	53
	54	55	58	62	63	69	71	72	73	78	79	84
	86	90	91	92	94	96	97	98	99	102	103	104
	105	109	111	112	113	114	115	118	119	120	122	123
	127	128	130	131	132	133	134	136	137	140	143	148
	150	152	154	157	159	160	162	163	164	165	166	167
	170	174	175	176								
181	2	10	18	21	23	24	28	41	47	50	53	54
	57	58	63	66	69	76	77	78	83	84	85	90
	91	96	97	98	103	104	105	112	115	118	123	124
	127	128	131	134	140	153	157	158	160	163	171	179
191	19	21	22	28	29	33	35	42	44	47	53	56
	57	58	61	62	63	71	73	74	76	83	87	88
	89	91	93	94	95	99	101	105	106	110	111	112
	113	114	116	119	123	124	126	127	131	132	137	140
	141	143	145	146	148	151	157	164	165	167	168	171
	173	174	175	176	178	179	181	182	183	187	188	189
193	5	10	15	17	19	22	26	30	34	37	38	40
	41	44	45	47	51	52	53	57	58	61	66	70
	73	77	78	79	80	82	90	91	102	103	111	113
	114	115	116	120	123	127	132	135	136	140	141	142
	146	148	149	152	153	155	156	159	163	167	171	174
	176	178	183	188								
197	2	3	5	8	11	12	13	17	18	21	27	30
	31	32	35	38	44	45	46	48	50	52	56	57
	58	66	67	71	72	73	74	75	78	79	80	82
	86	89	91	94	95	98	99	102	103	106	108	111
	115	117	118	119	122	123	124	125	126	130	131	139
	140	141	145	147	149	151	152	153	159	162	165	166
	167	170	176	179	180	184	185	186	189	192	194	195
199	3	6	15	22	30	34	38	39	41	44	48	54
	68	69	71	73	75	77	84	87	95	97	99	105
	108	110	113	118	119	120	127	129	133	134	142	143
	146	148	149	150	152	153	154	163	164	166	167	168
	170	173	176	179	183	185	186	189	190	192	195	197
211	2	3	7	17	22	29	35	39	41	48	57	72
	75	85	91	92	106	108	112	116	118	127	130	131
	133	141	142	145	149	152	155	158	159	160	162	164
	165	166	167	174	175	181	187	191	195	202	205	207

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
223	3	5	6	10	11	12	20	21	22	23	24	35
	42	44	45	46	48	51	57	61	67	70	71	75
	77	79	80	84	85	88	90	92	93	96	97	99
	102	107	113	114	117	122	123	129	134	137	140	142
	145	147	149	150	151	154	158	160	161	165	168	170
	173	176	180	185	186	187	192	194	198	204	205	214
227	2	5	6	8	13	14	15	17	18	20	22	24
	31	32	35	37	38	39	41	42	45	46	50	51
	52	54	55	56	58	60	61	66	67	68	72	80
	83	86	88	91	93	94	95	96	98	105	106	107
	111	114	115	117	118	119	123	124	125	126	127	128
	130	135	137	138	140	142	143	145	146	148	149	150
	151	152	153	154	156	157	158	162	163	164	165	168
	170	174	178	179	180	183	184	187	191	193	194	197
	198	199	200	201	202	204	206	208	211	215	216	217
	218	220	223	224								
229	6	7	10	23	24	28	29	31	35	38	39	40
	41	47	50	59	63	65	66	67	69	72	73	74
	77	79	87	90	92	96	98	102	105	110	112	113
	116	117	119	124	127	131	133	137	139	142	150	152
	155	156	157	160	162	163	164	166	170	179	182	188
	189	190	191	194	198	200	201	205	206	219	222	223
233	3	5	6	10	11	17	20	21	22	24	27	34
	35	39	40	41	42	43	44	45	47	48	53	54
	57	59	61	65	67	68	69	70	73	75	77	78
	79	80	82	83	84	86	87	88	90	93	94	95
	96	99	103	106	108	111	114	115	118	119	122	125
	127	130	134	137	138	139	140	143	145	146	147	149
	150	151	153	154	155	156	158	160	163	164	165	166
	168	172	174	176	179	180	185	186	188	189	190	191
	192	193	194	198	199	206	209	211	212	213	216	222
	223	227	228	230								
239	7	13	14	19	21	26	35	37	39	41	42	43
	46	47	53	56	57	59	63	65	69	70	74	77
	78	79	82	84	86	89	92	94	95	97	103	104
	105	106	112	114	115	117	118	119	123	126	129	130
	131	137	140	143	146	148	149	151	152	154	156	158
	159	167	171	173	175	177	178	179	181	184	185	189
	190	191	194	205	206	207	208	209	210	212	214	219
	221	222	223	224	227	228	230	231	234	235	236	237

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
241	7	13	14	31	34	35	37	39	42	46	51	52
	55	56	62	66	68	69	70	71	74	78	84	86
	92	95	99	104	109	110	112	114	127	129	131	132
	137	142	146	149	155	157	163	167	170	171	172	173
	175	179	185	186	189	190	195	199	202	204	206	207
	210	227	228	234								
251	6	11	14	18	19	24	26	29	30	33	34	37
	42	43	44	46	53	54	55	56	57	59	61	62
	70	71	72	76	77	78	82	87	90	95	96	97
	98	99	104	107	109	111	116	120	127	129	130	132
	133	134	136	137	139	141	143	145	146	148	150	158
	159	162	163	165	166	167	168	170	172	176	177	178
	183	184	185	186	191	193	199	202	203	206	210	212
	213	215	216	220	223	224	228	229	230	234	236	238
	239	242	244	248								
257	3	5	6	7	10	12	14	19	20	24	27	28
	33	37	38	39	40	41	43	45	47	48	51	53
	54	55	56	63	65	66	69	71	74	75	76	77
	78	80	82	83	85	86	87	90	91	93	94	96
	97	101	102	103	105	106	107	108	109	110	112	115
	119	125	126	127	130	131	132	138	142	145	147	148
	149	150	151	152	154	155	156	160	161	163	164	166
	167	170	171	172	174	175	177	179	180	181	182	183
	186	188	191	192	194	201	202	203	204	206	209	210
	212	214	216	217	218	219	220	224	229	230	233	237
	238	243	245	247	250	251	252	254				
263	5	7	10	14	15	19	20	21	28	29	30	38
	40	41	42	45	47	53	55	56	57	58	59	60
	63	65	67	71	73	76	77	79	80	82	84	85
	87	90	91	94	97	101	106	107	110	112	113	114
	115	116	118	119	120	123	125	126	127	130	131	134
	135	139	141	142	146	152	154	155	158	159	160	161
	163	164	165	167	168	170	171	174	175	177	180	182
	185	188	189	191	193	194	195	197	199	201	202	209
	211	212	213	214	215	217	219	220	224	226	227	228
	229	230	231	232	236	237	238	239	240	241	245	246
	247	250	251	252	254	255	257	259	260	261		
269	2	3	7	8	10	12	15	17	18	19	22	26
	27	28	29	31	32	33	35	39	40	42	46	48
	50	59	60	63	68	69	71	72	74	75	76	77
	83	85	86	88	90	91	94	95	98	101	102	104
	106	107	108	109	110	111	112	113	114	116	122	123
	124	128	129	130	132	134	135	137	139	140	141	145
	146	147	153	155	156	157	158	159	160	161	162	163
	165	167	168	171	174	175	178	179	181	183	184	186
	192	193	194	195	197	198	200	201	206	209	210	219
	221	223	227	229	230	234	236	237	238	240	241	242
	243	247	250	251	252	254	257	259	261	262	266	267

PRIMITIVE ROOTS

MODULUS	PRIMITIVE ROOTS											
271	6	15	21	26	38	42	43	46	48	51	52	58
	59	66	71	73	75	76	91	92	94	95	96	97
	101	107	108	109	116	118	120	133	135	137	142	143
	147	149	150	159	161	168	172	182	186	189	193	197
	201	203	204	208	209	210	215	218	221	222	226	231
	234	235	249	251	253	254	255	257	260	264	267	269
277	5	6	11	14	17	18	20	24	31	43	44	45
	46	50	53	56	58	65	68	72	77	78	80	93
	94	96	97	98	99	101	103	105	107	110	111	114
	115	119	124	126	127	134	135	137	140	142	143	150
	151	153	158	162	163	166	167	170	172	174	176	178
	179	180	181	183	184	197	199	200	205	209	212	219
	221	224	227	231	232	233	234	246	253	257	259	260
	263	266	271	272								
281	3	11	12	13	15	19	21	22	23	24	26	27
	30	41	42	44	46	48	51	52	54	55	71	74
	75	76	82	83	84	87	91	94	95	96	97	103
	104	105	107	108	110	115	117	120	122	127	131	133
	148	150	154	159	161	164	166	171	173	174	176	177
	178	184	185	186	187	190	194	197	198	199	205	206
	207	210	226	227	229	230	233	235	237	239	240	251
	254	255	257	258	259	260	262	266	268	269	270	278
283	3	5	12	14	17	18	20	22	26	31	35	37
	46	47	48	50	55	56	65	68	69	72	75	80
	82	87	88	98	104	107	109	114	118	119	123	124
	126	133	139	140	145	146	147	148	153	154	162	166
	170	171	173	178	180	182	183	184	186	187	188	189
	190	191	192	193	194	198	200	202	206	209	210	213
	220	221	224	226	231	234	242	243	247	249	255	258
	259	260	270	272	273	274	276	277				
293	2	3	5	7	8	11	12	13	18	19	20	23
	27	28	29	30	32	34	41	42	44	45	47	48
	50	51	52	62	63	66	70	72	74	75	76	78
	79	80	85	86	89	92	93	98	99	101	103	105
	106	108	110	111	112	113	114	116	117	118	119	120
	122	125	127	128	129	130	131	134	136	139	142	146
	147	151	154	157	159	162	163	164	165	166	168	171
	173	174	175	176	177	179	180	181	182	183	185	187
	188	190	192	194	195	200	201	204	207	208	213	214
	215	217	218	219	221	223	227	230	231	241	242	243
	245	246	248	249	251	252	259	261	263	264	265	266
	270	273	274	275	280	281	282	285	286	288	290	291

POWER RESIDUES AND INDICES OF PRIMES

In the following, the table labeled RESIDUES gives the power residues of a primitive root which may be identified by noting the tabular value under 1. The table labeled INDICES shows the exponent of this primitive root that gives the indicated power residue modulo the prime. Indices are taken modulo p-1.

MODULUS 3

RESIDUES		INDICES		
0	1	0	1	2
1	2		0	1

MODULUS 5

RESIDUES				INDICES				
0	1	2	3	0	1	2	3	4
1	2	4	3		0	1	3	2

MODULUS 7

RESIDUES

0	1	2	3	4	5
1	3	2	6	4	5

INDICES

0	1	2	3	4	5	6
	0	2	1	4	5	3

MODULUS 11

RESIDUES

0	1	2	3	4	5	6	7	8	9
1	2	4	8	5	10	9	7	3	6

INDICES

0	1	2	3	4	5	6	7	8	9	10
	0	1	8	2	4	9	7	3	6	5

MODULUS 13

RESIDUES

	0	1	2	3	4	5	6	7	8	9
0	1	2	4	8	3	6	12	11	9	5
1	10	7								

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	1	4	2	9	5	11	3	8
1	10	7	6							

MODULUS 17

RESIDUES

	0/1	1/3	2/9	3/10	4/13	5/5	6/15	7/11	8/16	9/14
0										
1	8	7	4	12	2	6				

INDICES

	0/	1/0	2/14	3/1	4/12	5/5	6/15	7/11	8/10	9/2
0										
1	3	7	13	4	9	6	8			

MODULUS 19

RESIDUES

	0/1	1/2	2/4	3/8	4/16	5/13	6/7	7/14	8/9	9/18
0										
1	17	15	11	3	6	12	5	10		

INDICES

	0/	1/0	2/1	3/13	4/2	5/16	6/14	7/6	8/3	9/8
0										
1	17	12	15	5	7	11	4	10	9	

MODULUS 23

RESIDUES

	0/1	1/5	2/2	3/10	4/4	5/20	6/8	7/17	8/16	9/11
0										
1	9	22	18	21	13	19	3	15	6	7
2	12	14								

INDICES

	0/	1/0	2/2	3/16	4/4	5/1	6/18	7/19	8/6	9/10
0										
1	3	9	20	14	21	17	8	7	12	15
2	5	13	11							

MODULUS 29

RESIDUES

	0/1	1/2	2/4	3/8	4/16	5/3	6/6	7/12	8/24	9/19
0										
1	9	18	7	14	28	27	25	21	13	26
2	23	17	5	10	20	11	22	15		

POWER RESIDUES AND INDICES OF PRIMES

MODULUS 29

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	5	2	22	6	12	3	10
0										
1	23	25	7	18	13	27	4	21	11	9
2	24	17	26	20	8	16	19	15	14	

MODULUS 31

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	3	9	27	19	26	16	17	20	29
0										
1	25	13	8	24	10	30	28	22	4	12
2	5	15	14	11	2	6	18	23	7	21

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	24	1	18	20	25	28	12	2
0										
1	14	23	19	11	22	21	6	7	26	4
2	8	29	17	27	13	10	5	3	16	9
3	15									

MODULUS 37

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	2	4	8	16	32	27	17	34	31
0										
1	25	13	26	15	30	23	9	18	36	35
2	33	29	21	5	10	20	3	6	12	24
3	11	22	7	14	28	19				

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	26	2	23	27	32	3	16
0										
1	24	30	28	11	33	13	4	7	17	35
2	25	22	31	15	29	10	12	6	34	21
3	14	9	5	20	8	19	18			

MODULUS 41

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	7	8	15	23	38	20	17	37	13
0										
1	9	22	31	12	2	14	16	30	5	35
2	40	34	33	26	18	3	21	24	4	28
3	32	19	10	29	39	27	25	11	36	6

MODULUS 41

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	14	25	28	18	39	1	2	10
1	32	37	13	9	15	3	16	7	24	31
2	6	26	11	4	27	36	23	35	29	33
3	17	12	30	22	21	19	38	8	5	34
4	20									

MODULUS 43

RESIDUES

	0	1	2	3	4	5	6	7	8	9
0	1	3	9	27	38	28	41	37	25	32
1	10	30	4	12	36	22	23	26	35	19
2	14	42	40	34	16	5	15	2	6	18
3	11	33	13	39	31	7	21	20	17	8
4	24	29								

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	27	1	12	25	28	35	39	2
1	10	30	13	32	20	26	24	38	29	19
2	37	36	15	16	40	8	17	3	5	41
3	11	34	9	31	23	18	14	7	4	33
4	22	6	21							

MODULUS 47

RESIDUES

	0	1	2	3	4	5	6	7	8	9
0	1	5	25	31	14	23	21	11	8	40
1	12	13	18	43	27	41	17	38	2	10
2	3	15	28	46	42	22	16	33	24	26
3	36	39	7	35	34	29	4	20	6	30
4	9	45	37	44	32	19				

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	18	20	36	1	38	32	8	40
1	19	7	10	11	4	21	26	16	12	45
2	37	6	25	5	28	2	29	14	22	35
3	39	3	44	27	34	33	30	42	17	31
4	9	15	24	13	43	41	23			

MODULUS 53

RESIDUES

	0/1	1/2	2/4	3/8	4/16	5/32	6/11	7/22	8/44	9/35
0										
1	17	34	15	30	7	14	28	3	6	12
2	24	48	43	33	13	26	52	51	49	45
3	37	21	42	31	9	18	36	19	38	23
4	46	39	25	50	47	41	29	5	10	20
5	40	27								

INDICES

	0	1/0	2/1	3/17	4/2	5/47	6/18	7/14	8/3	9/34
0										
1	48	6	19	24	15	12	4	10	35	37
2	49	31	7	39	20	42	25	51	16	46
3	13	33	5	23	11	9	36	30	38	41
4	50	45	32	22	8	29	40	44	21	28
5	43	27	26							

MODULUS 59

RESIDUES

	0/1	1/2	2/4	3/8	4/16	5/32	6/5	7/10	8/20	9/40
0										
1	21	42	25	50	41	23	46	33	7	14
2	28	56	53	47	35	11	22	44	29	58
3	57	55	51	43	27	54	49	39	19	38
4	17	34	9	18	36	13	26	52	45	31
5	3	6	12	24	48	37	15	30		

INDICES

	0	1/0	2/1	3/50	4/2	5/6	6/51	7/18	8/3	9/42
0										
1	7	25	52	45	19	56	4	40	43	38
2	8	10	26	15	53	12	46	34	20	28
3	57	49	5	17	41	24	44	55	39	37
4	9	14	11	33	27	48	16	23	54	36
5	13	32	47	22	35	31	21	30	29	

MODULUS 61

RESIDUES

	0/1	1/2	2/4	3/8	4/16	5/32	6/3	7/6	8/12	9/24
0										
1	48	35	9	18	36	11	22	44	27	54
2	47	33	5	10	20	40	19	38	15	30
3	60	59	57	53	45	29	58	55	49	37
4	13	26	52	43	25	50	39	17	34	7
5	14	28	56	51	41	21	42	23	46	31

MODULUS 61

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	6	2	22	7	49	3	12
0										
1	23	15	8	40	50	28	4	47	13	26
2	24	55	16	57	9	44	41	18	51	35
3	29	59	5	21	48	11	14	39	27	46
4	25	54	56	43	17	34	58	20	10	38
5	45	53	42	33	19	37	52	32	36	31
6	30									

MODULUS 67

RESIDUES

	0	1	2	3	4	5	6	7	8	9
0	1	2	4	8	16	32	64	61	55	43
1	19	38	9	18	36	5	10	20	40	13
2	26	52	37	7	14	28	56	45	23	46
3	25	50	33	66	65	63	59	51	35	3
4	6	12	24	48	29	58	49	31	62	57
5	47	27	54	41	15	30	60	53	39	11
6	22	44	21	42	17	34				

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	39	2	15	40	23	3	12
0										
1	16	59	41	19	24	54	4	64	13	10
2	17	62	60	28	42	30	20	51	25	44
3	55	47	5	32	65	38	14	22	11	58
4	18	53	63	9	61	27	29	50	43	46
5	31	37	21	57	52	8	26	49	45	36
6	56	7	48	35	6	34	33			

MODULUS 71

RESIDUES

	0	1	2	3	4	5	6	7	8	9
0	1	7	49	59	58	51	2	14	27	47
1	45	31	4	28	54	23	19	62	8	56
2	37	46	38	53	16	41	3	21	5	35
3	32	11	6	42	10	70	64	22	12	13
4	20	69	57	44	24	26	40	67	43	17
5	48	52	9	63	15	34	25	33	18	55
6	30	68	50	66	36	39	60	65	29	61

POWER RESIDUES AND INDICES OF PRIMES

MODULUS 71

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	6	26	12	28	32	1	18	52
0										
1	34	31	38	39	7	54	24	49	58	16
2	40	27	37	15	44	56	45	8	13	68
3	60	11	30	57	55	29	64	20	22	65
4	46	25	33	48	43	10	21	9	50	2
5	62	5	51	23	14	59	19	42	4	3
6	66	69	17	53	36	67	63	47	61	41
7	35									

MODULUS 73

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	5	25	52	41	59	3	15	2	10
0										
1	50	31	9	45	6	30	4	20	27	62
2	18	17	12	60	8	40	54	51	36	34
3	24	47	16	7	35	29	72	68	48	21
4	32	14	70	58	71	63	23	42	64	28
5	67	43	69	53	46	11	55	56	61	13
6	65	33	19	22	37	39	49	26	57	66
7	38	44								

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	8	6	16	1	14	33	24	12
0										
1	9	55	22	59	41	7	32	21	20	62
2	17	39	63	46	30	2	67	18	49	35
3	15	11	40	61	29	34	28	64	70	65
4	25	4	47	51	71	13	54	31	38	66
5	10	27	3	53	26	56	57	68	43	5
6	23	58	19	45	48	60	69	50	37	52
7	42	44	36							

MODULUS 79

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	3	9	27	2	6	18	54	4	12
0										
1	36	29	8	24	72	58	16	48	65	37
2	32	17	51	74	64	34	23	69	49	68
3	46	59	19	57	13	39	38	35	26	78
4	76	70	52	77	73	61	25	75	67	43
5	50	71	55	7	21	63	31	14	42	47
6	62	28	5	15	45	56	10	30	11	33
7	20	60	22	66	40	41	44	53		

MODULUS 79

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	4	1	8	62	5	53	12	2
0										
1	66	68	9	34	57	63	16	21	6	32
2	70	54	72	26	13	46	38	3	61	11
3	67	56	20	69	25	37	10	19	36	35
4	74	75	58	49	76	64	30	59	17	28
5	50	22	42	77	7	52	65	33	15	31
6	71	45	60	55	24	18	73	48	29	27
7	41	51	14	44	23	47	40	43	39	

MODULUS 83

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	2	4	8	16	32	64	45	7	14
0										
1	28	56	29	58	33	66	49	15	30	60
2	37	74	65	47	11	22	44	5	10	20
3	40	80	77	71	59	35	70	57	31	62
4	41	82	81	79	75	67	51	19	38	76
5	69	55	27	54	25	50	17	34	68	53
6	23	46	9	18	36	72	61	39	78	73
7	63	43	3	6	12	24	48	13	26	52
8	21	42								

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	72	2	27	73	8	3	62
0										
1	28	24	74	77	9	17	4	56	63	47
2	29	80	25	60	75	54	78	52	10	12
3	18	38	5	14	57	35	64	20	48	67
4	30	40	81	71	26	7	61	23	76	16
5	55	46	79	59	53	51	11	37	13	34
6	19	66	39	70	6	22	15	45	58	50
7	36	33	65	69	21	44	49	32	68	43
8	31	42	41							

MODULUS 89

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	3	9	27	81	65	17	51	64	14
0										
1	42	37	22	66	20	60	2	6	18	54
2	73	41	34	13	39	28	84	74	44	43
3	40	31	4	12	36	19	57	82	68	26
4	78	56	79	59	88	86	80	62	8	24
5	72	38	25	75	47	52	67	23	69	29
6	87	83	71	35	16	48	55	76	50	61
7	5	15	45	46	49	58	85	77	53	70
8	32	7	21	63	11	33	10	30		

MODULUS 89

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	16	1	32	70	17	81	48	2
0										
1	86	84	33	23	9	71	64	6	18	35
2	14	82	12	57	49	52	39	3	25	59
3	87	31	80	85	22	63	34	11	51	24
4	30	21	10	29	28	72	73	54	65	74
5	68	7	55	78	19	66	41	36	75	43
6	15	69	47	83	8	5	13	56	38	58
7	79	62	50	20	27	53	67	77	40	42
8	46	4	37	61	26	76	45	60	44	

MODULUS 97

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	5	25	28	43	21	8	40	6	30
0										
1	53	71	64	29	48	46	36	83	27	38
2	93	77	94	82	22	13	65	34	73	74
3	79	7	35	78	2	10	50	56	86	42
4	16	80	12	60	9	45	31	58	96	92
5	72	69	54	76	89	57	91	67	44	26
6	33	68	49	51	61	14	70	59	4	20
7	3	15	75	84	32	63	24	23	18	90
8	62	19	95	87	47	41	11	55	81	17
9	85	37	88	52	66	39				

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	34	70	68	1	8	31	6	44
0										
1	35	86	42	25	65	71	40	89	78	81
2	69	5	24	77	76	2	59	18	3	13
3	9	46	74	60	27	32	16	91	19	95
4	7	85	39	4	58	45	15	84	14	62
5	36	63	93	10	52	87	37	55	47	67
6	43	64	80	75	12	26	94	57	61	51
7	66	11	50	28	29	72	53	21	33	30
8	41	88	23	17	73	90	38	83	92	54
9	79	56	49	20	22	82	48			

MODULUS 101

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	2	4	8	16	32	64	27	54	7
0										
1	14	28	56	11	22	44	88	75	49	98
2	95	89	77	53	5	10	20	40	80	59
3	17	34	68	35	70	39	78	55	9	18
4	36	72	43	86	71	41	82	63	25	50
5	100	99	97	93	85	69	37	74	47	94
6	87	73	45	90	79	57	13	26	52	3
7	6	12	24	48	96	91	81	61	21	42
8	84	67	33	66	31	62	23	46	92	83
9	65	29	58	15	30	60	19	38	76	51

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	69	2	24	70	9	3	38
0										
1	25	13	71	66	10	93	4	30	39	96
2	26	78	14	86	72	48	67	7	11	91
3	94	84	5	82	31	33	40	56	97	35
4	27	45	79	42	15	62	87	58	73	18
5	49	99	68	23	8	37	12	65	92	29
6	95	77	85	47	6	90	83	81	32	55
7	34	44	41	61	57	17	98	22	36	64
8	28	76	46	89	80	54	43	60	16	21
9	63	75	88	53	59	20	74	52	19	51
10	50									

MODULUS 103

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	5	25	22	7	35	72	51	49	39
0										
1	92	48	34	67	26	27	32	57	79	86
2	18	90	38	87	23	12	60	94	58	84
3	8	40	97	73	56	74	61	99	83	3
4	15	75	66	21	2	10	50	44	14	70
5	41	102	98	78	81	96	68	31	52	54
6	64	11	55	69	36	77	76	71	46	24
7	17	85	13	65	16	80	91	43	9	45
8	19	95	63	6	30	47	29	42	4	20
9	100	88	28	37	82	101	93	53	59	89
10	33	62								

MODULUS 103

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	44	39	88	1	83	4	30	78
0										
1	45	61	25	72	48	40	74	70	20	80
2	89	43	3	24	69	2	14	15	92	86
3	84	57	16	100	12	5	64	93	22	9
4	31	50	87	77	47	79	68	85	11	8
5	46	7	58	97	59	62	34	17	28	98
6	26	36	101	82	60	73	42	13	56	63
7	49	67	6	33	35	41	66	65	53	18
8	75	54	94	38	29	71	19	23	91	99
9	21	76	10	96	27	81	55	32	52	37
10	90	95	51							

MODULUS 107

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	2	4	8	16	32	64	21	42	84
0										
1	61	15	30	60	13	26	52	104	101	95
2	83	59	11	22	44	88	69	31	62	17
3	34	68	29	58	9	18	36	72	37	74
4	41	82	57	7	14	28	56	5	10	20
5	40	80	53	106	105	103	99	91	75	43
6	86	65	23	46	92	77	47	94	81	55
7	3	6	12	24	48	96	85	63	19	38
8	76	45	90	73	39	78	49	98	89	71
9	35	70	33	66	25	50	100	93	79	51
10	102	97	87	67	27	54				

INDICES

	0	1	2	3	4	5	6	7	8	9
		0	1	70	2	47	71	43	3	34
0										
1	48	22	72	14	44	11	4	29	35	78
2	49	7	23	62	73	94	15	104	45	32
3	12	27	5	92	30	90	36	38	79	84
4	50	40	8	59	24	81	63	66	74	86
5	95	99	16	52	105	69	46	42	33	21
6	13	10	28	77	6	61	93	103	31	26
7	91	89	37	83	39	58	80	65	85	98
8	51	68	41	20	9	76	60	102	25	88
9	82	57	64	97	67	19	75	101	87	56
10	96	18	100	55	17	54	53			

MODULUS 109

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	11	12	23	35	58	93	42	26	68
0	94	53	38	91	20	2	22	24	46	70
1	7	77	84	52	27	79	106	76	73	40
2	4	44	48	92	31	14	45	59	104	54
3	49	103	43	37	80	8	88	96	75	62
4	28	90	9	99	108	98	97	86	74	51
5	16	67	83	41	15	56	71	18	89	107
6	87	85	63	39	102	32	25	57	82	30
7	3	33	36	69	105	65	61	17	78	95
8	64	50	5	55	60	6	66	72	29	101
9	21	13	34	47	81	19	100	10		
10										

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	15	80	30	92	95	20	45	52
1	107	1	2	101	35	64	60	87	67	105
2	14	100	16	3	17	76	8	24	50	98
3	79	34	75	81	102	4	82	43	12	73
4	29	63	7	42	31	36	18	103	32	40
5	91	59	23	11	39	93	65	77	5	37
6	94	86	49	72	90	85	96	61	9	83
7	19	66	97	28	58	48	27	21	88	25
8	44	104	78	62	22	71	57	70	46	68
9	51	13	33	6	10	89	47	56	55	53
10	106	99	74	41	38	84	26	69	54	

MODULUS 113

RESIDUES

	0	1	2	3	4	5	6	7	8	9
	1	3	9	27	81	17	51	40	7	21
0	63	76	2	6	18	54	49	34	102	80
1	14	42	13	39	4	12	36	108	98	68
2	91	47	28	84	26	78	8	24	72	103
3	83	23	69	94	56	55	52	43	16	48
4	31	93	53	46	25	75	112	110	104	86
5	32	96	62	73	106	92	50	37	111	107
6	95	59	64	79	11	33	99	71	100	74
7	109	101	77	5	15	45	22	66	85	29
8	87	35	105	89	41	10	30	90	44	19
9	57	58	61	70	97	65	82	20	60	67
10	88	38								
11										

POWER RESIDUES AND INDICES OF PRIMES

MODULUS 113

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	12	1	24	83	13	8	36	2
1	95	74	25	22	20	84	48	5	14	99
2	107	9	86	41	37	54	34	3	32	89
3	96	50	60	75	17	91	26	67	111	23
4	7	94	21	47	98	85	53	31	49	16
5	66	6	46	52	15	45	44	100	101	71
6	108	102	62	10	72	105	87	109	29	42
7	103	77	38	63	79	55	11	82	35	73
8	19	4	106	40	33	88	59	90	110	93
9	97	30	65	51	43	70	61	104	28	76
10	78	81	18	39	58	92	64	69	27	80
11	57	68	56							

MODULUS 127

RESIDUES

	0	1	2	3	4	5	6	7	8	9
0	1	3	9	27	81	116	94	28	84	125
1	121	109	73	92	22	66	71	86	4	12
2	36	108	70	83	122	112	82	119	103	55
3	38	114	88	10	30	90	16	48	17	51
4	26	78	107	67	74	95	31	93	25	75
5	98	40	120	106	64	65	68	77	104	58
6	47	14	42	126	124	118	100	46	11	33
7	99	43	2	6	18	54	35	105	61	56
8	41	123	115	91	19	57	44	5	15	45
9	8	24	72	89	13	39	117	97	37	111
10	79	110	76	101	49	20	60	53	32	96
11	34	102	52	29	87	7	21	63	62	59
12	50	23	69	80	113	85				

INDICES

	0	1	2	3	4	5	6	7	8	9
0		0	72	1	18	87	73	115	90	2
1	33	68	19	94	61	88	36	38	74	84
2	105	116	14	121	91	48	40	3	7	113
3	34	46	108	69	110	76	20	98	30	95
4	51	80	62	71	86	89	67	60	37	104
5	120	39	112	107	75	29	79	85	59	119
6	106	78	118	117	54	55	15	43	56	122
7	22	16	92	12	44	49	102	57	41	100
8	123	4	26	23	8	125	17	114	32	93
9	35	83	13	47	6	45	109	97	50	70
10	66	103	11	28	58	77	53	42	21	11
11	101	99	25	124	31	82	5	96	65	27
12	52	10	24	81	64	9	63			

CUBIC RESIDUES

In the following table those moduli (m) within the limits of the table which have all residues as cubic residues are omitted.

m	CUBIC RESIDUES									
4	1	3								
7	1	6								
8	1	3	5	7						
9	1	8								
12	1	3	4	5	7	8	9	11		
13	1	5	8	12						
14	1	6	7	8	13					
16	1	3	5	7	8	9	11	13	15	
18	1	8	9	10	17					
19	1	7	8	11	12	18				
20	1	3	4	5	7	8	9	11	12	13
	15	16	17	19						
21	1	6	7	8	13	14	15	20		
24	1	3	5	7	8	9	11	13	15	16
	17	19	21	23						
25	1	2	3	4	6	7	8	9	11	12
	13	14	16	17	18	19	21	22	23	24
26	1	5	8	12	13	14	18	21	25	
27	1	8	10	17	19	26				
28	1	7	8	13	15	20	21	27		
31	1	2	4	8	15	16	23	27	29	30
32	1	3	5	7	8	9	11	13	15	17
	19	21	23	24	25	27	29	31		
35	1	6	7	8	13	14	15	20	21	22
	27	28	29	34						
36	1	8	9	17	19	27	28	35		
37	1	6	8	10	11	14	23	26	27	29
	31	36								
38	1	7	8	11	12	18	19	20	26	27
	30	31	37							
39	1	5	8	12	13	14	18	21	25	26
	27	31	34	38						

CUBIC RESIDUES

m	CUBIC RESIDUES									
40	1	3	5	7	8	9	11	13	15	16
	17	19	21	23	24	25	27	29	31	32
	33	35	37	39						
42	1	6	7	8	13	14	15	20	21	22
	27	28	29	34	35	36	41			
43	1	2	4	8	11	16	21	22	27	32
	35	39	41	42						
44	1	3	4	5	7	8	9	11	12	13
	15	16	17	19	20	21	23	24	25	27
	28	29	31	32	33	35	36	37	39	40
	41	43								
45	1	8	9	10	17	18	19	26	27	28
	35	36	37	44						
48	1	3	5	7	8	9	11	13	15	16
	17	19	21	23	24	25	27	29	31	32
	33	35	37	39	40	41	43	45	47	
49	1	6	8	13	15	20	22	27	29	34
	36	41	43	48						
50	1	2	3	4	6	7	8	9	11	12
	13	14	16	17	18	19	21	22	23	24
	25	26	27	28	29	31	32	33	34	36
	37	38	39	41	42	43	44	46	47	48
	49									
52	1	5	8	12	13	21	25	27	31	39
	40	44	47	51						
54	1	8	10	17	19	26	27	28	35	37
	44	46	53							
56	1	7	8	13	15	21	27	29	35	41
	43	48	49	55						
57	1	7	8	11	12	18	19	20	26	27
	30	31	37	38	39	45	46	49	50	56
60	1	3	4	5	7	8	9	11	12	13
	15	16	17	19	20	21	23	24	25	27
	28	29	31	32	33	35	36	37	39	40
	41	43	44	45	47	48	49	51	52	53
	55	56	57	59						

m	CUBIC RESIDUES									
61	1	3	8	9	11	20	23	24	27	28
	33	34	37	38	41	50	52	53	58	60
62	1	2	4	8	15	16	23	27	29	30
	31	32	33	35	39	46	47	54	58	60
	61									
63	1	8	27	28	35	36	55	62		
64	1	3	5	7	8	9	11	13	15	17
	19	21	23	24	25	27	29	31	33	35
	37	39	40	41	43	45	47	49	51	53
	55	56	57	59	61	63				
65	1	5	8	12	13	14	18	21	25	26
	27	31	34	38	39	40	44	47	51	52
	53	57	60	64						
67	1	3	5	8	9	14	15	22	24	25
	27	40	42	43	45	52	53	58	59	62
	64	66								
68	1	3	4	5	7	8	9	11	12	13
	15	16	17	19	20	21	23	24	25	27
	28	29	31	32	33	35	36	37	39	40
	41	43	44	45	47	48	49	51	52	53
	55	56	57	59	60	61	63	64	65	67
70	1	6	7	8	13	14	15	20	21	22
	27	28	29	34	35	36	41	42	43	48
	49	50	55	56	57	62	63	64	69	
72	1	8	9	17	19	27	35	37	45	53
	55	63	64	71						
73	1	3	7	8	9	10	17	21	22	24
	27	30	43	46	49	51	52	56	63	64
	65	66	70	72						
74	1	6	8	10	11	14	23	26	27	29
	31	36	37	38	43	45	47	48	51	60
	63	64	66	68	73					
75	1	2	3	4	6	7	8	9	11	12
	13	14	16	17	18	19	21	22	23	24
	25	26	27	28	29	31	32	33	34	36
	37	38	39	41	42	43	44	46	47	48
	49	50	51	52	53	54	56	57	58	59
	61	62	63	64	66	67	68	69	71	72
	73	74								

m	CUBIC RESIDUES									
76	1	7	8	11	12	19	20	27	31	37
	39	45	49	56	57	64	65	68	69	75
77	1	6	7	8	13	14	15	20	21	22
	27	28	29	34	35	36	41	42	43	48
	49	50	55	56	57	62	63	64	69	70
	71	76								
78	1	5	8	12	13	14	18	21	25	26
	27	31	34	38	39	40	44	47	51	52
	53	57	60	64	65	66	70	73	77	
79	1	8	10	12	14	15	17	18	21	22
	27	33	38	41	46	52	57	58	61	62
	64	65	67	69	71	78				
80	1	3	5	7	8	9	11	13	15	16
	17	19	21	23	24	25	27	29	31	32
	33	35	37	39	40	41	43	45	47	48
	49	51	53	55	56	57	59	61	63	64
	65	67	69	71	72	73	75	77	79	
81	1	8	10	17	19	26	27	28	35	37
	44	46	53	54	55	62	64	71	73	80
84	1	7	8	13	15	20	21	27	28	29
	35	36	41	43	48	49	55	56	57	63
	64	69	71	76	77	83				
86	1	2	4	8	11	16	21	22	27	32
	35	39	41	42	43	44	45	47	51	54
	59	64	65	70	75	78	82	84	85	
88	1	3	5	7	8	9	11	13	15	16
	17	19	21	23	24	25	27	29	31	32
	33	35	37	39	40	41	43	45	47	48
	49	51	53	55	56	57	59	61	63	64
	65	67	69	71	72	73	75	77	79	80
	81	83	85	87						
90	1	8	9	10	17	18	19	26	27	28
	35	36	37	44	45	46	53	54	55	62
	63	64	71	72	73	80	81	82	89	
91	1	8	13	14	21	27	34	57	64	70
	77	78	83	90						

m	CUBIC RESIDUES									
92	1	3	4	5	7	8	9	11	12	13
	15	16	17	19	20	21	23	24	25	27
	28	29	31	32	33	35	36	37	39	40
	41	43	44	45	47	48	49	51	52	53
	55	56	57	59	60	61	63	64	65	67
	68	69	71	72	73	75	76	77	79	80
	81	83	84	85	87	88	89	91		
93	1	2	4	8	15	16	23	27	29	30
	31	32	33	35	39	46	47	54	58	60
	61	62	63	64	66	70	77	78	85	89
	91	92								
95	1	7	8	11	12	18	19	20	26	27
	30	31	37	38	39	45	46	49	50	56
	57	58	64	65	68	69	75	76	77	83
	84	87	88	94						
96	1	3	5	7	8	9	11	13	15	17
	19	21	23	24	25	27	29	31	32	33
	35	37	39	40	41	43	45	47	49	51
	53	55	56	57	59	61	63	64	65	67
	69	71	72	73	75	77	79	81	83	85
	87	88	89	91	93	95				
97	1	8	12	18	19	20	22	27	28	30
	33	34	42	45	46	47	50	51	52	55
	63	64	67	69	70	75	77	78	79	85
	89	96								
98	1	6	8	13	15	20	22	27	29	34
	36	41	43	48	49	50	55	57	62	64
	69	71	76	78	83	85	90	92	97	
99	1	8	9	10	17	18	19	26	27	28
	35	36	37	44	45	46	53	54	55	62
	63	64	71	72	73	80	81	82	89	90
	91	98								
100	1	3	4	7	8	9	11	12	13	16
	17	19	21	23	24	25	27	28	29	31
	32	33	36	37	39	41	43	44	47	48
	49	51	52	53	56	57	59	61	63	64
	67	68	69	71	72	73	75	76	77	79
	81	83	84	87	88	89	91	92	93	96
	97	99								

QUARTIC RESIDUES

m	QUARTIC RESIDUES
2	1
3	1
4	1
5	1
6	1 3 4
7	1 2 4
8	1
9	1 4 7
10	1 5 6
11	1 3 4 5 9
12	1 4 9
13	1 3 9
14	1 2 4 7 8 9 11
15	1 6 10
16	1
17	1 4 13 16
18	1 4 7 9 10 13 16
19	1 4 5 6 7 9 11 16 17
20	1 5 16
21	1 4 7 9 15 16 18
22	1 3 4 5 9 11 12 14 15 16 20
23	1 2 3 4 6 8 9 12 13 16 18
24	1 9 16
25	1 6 11 16 21
26	1 3 9 13 14 16 22
27	1 4 7 10 13 16 19 22 25
28	1 4 8 9 16 21 25
29	1 7 16 20 23 24 25
30	1 6 10 15 16 21 25
31	1 2 4 5 7 8 9 10 14 16 18 19 20 25 28
32	1 16 17
33	1 3 4 9 12 15 16 22 25 27 31
34	1 4 13 16 17 18 21 30 33
35	1 11 15 16 21 25 30
36	1 4 9 13 16 25 28
37	1 7 9 10 12 16 26 33 34
38	1 4 5 6 7 9 11 16 17 19 20 23 24 25 26 28 30 35 36
39	1 3 9 13 16 22 27
40	1 16 25

QUARTIC RESIDUES

m	QUARTIC RESIDUES									
41	1	4	10	16	18	23	25	31	37	40
42	1	4	7	9	15	16	18	21	22	25
	28	30	36	37	39					
43	1	4	6	9	10	11	13	14	15	16
	17	21	23	24	25	31	35	36	38	40
	41									
44	1	4	5	9	12	16	20	25	33	36
	37									
45	1	10	16	25	31	36	40			
46	1	2	3	4	6	8	9	12	13	16
	18	23	24	25	26	27	29	31	32	35
	36	39	41							
47	1	2	3	4	6	7	8	9	12	14
	16	17	18	21	24	25	27	28	32	34
	36	37	42							
48	1	16	33							
49	1	2	4	8	9	11	15	16	18	22
	23	25	29	30	32	36	37	39	43	44
	46									
50	1	6	11	16	21	25	26	31	36	41
	46									
51	1	4	13	16	18	21	30	33	34	
52	1	9	13	16	29	40	48			
53	1	10	13	15	16	24	28	36	42	44
	46	47	49							
54	1	4	7	10	13	16	19	22	25	27
	28	31	34	37	40	43	46	49	52	
55	1	5	11	15	16	20	25	26	31	36
	45									
56	1	8	9	16	25	32	49			
57	1	4	6	7	9	16	19	24	25	28
	30	36	39	42	43	45	49	54	55	
58	1	7	16	20	23	24	25	29	30	36
	45	49	52	53	54					
59	1	3	4	5	7	9	12	15	16	17
	19	20	21	22	25	26	27	28	29	35
	36	41	45	46	48	49	51	53	57	
60	1	16	21	25	36	40	45			
61	1	9	12	13	15	16	20	22	25	34
	42	47	56	57	58					
62	1	2	4	5	7	8	9	10	14	16
	18	19	20	25	28	31	32	33	35	36
	38	39	40	41	45	47	49	50	51	56
	59									
63	1	4	7	9	16	18	22	25	28	36
	37	43	46	49	58					
64	1	16	17	33	49					
65	1	16	26	35	40	55	61			

m	QUARTIC RESIDUES									
66	1	3	4	9	12	15	16	22	25	27
	31	33	34	36	37	42	45	48	49	55
	58	60	64							
67	1	4	6	9	10	14	15	16	17	19
	21	22	23	24	25	26	29	33	35	36
	37	39	40	47	49	54	55	56	59	60
	62	64	65							
68	1	4	13	16	17	21	33	52	64	
69	1	3	4	6	9	12	13	16	18	24
	25	27	31	36	39	46	48	49	52	54
	55	58	64							
70	1	11	15	16	21	25	30	35	36	46
	50	51	56	60	65					
71	1	2	3	4	5	6	8	9	10	12
	15	16	18	19	20	24	25	27	29	30
	32	36	37	38	40	43	45	48	49	50
	54	57	58	60	64					
72	1	9	16	25	40	49	64			
73	1	2	4	8	9	16	18	32	36	37
	41	55	57	64	65	69	71	72		
74	1	7	9	10	12	16	26	33	34	37
	38	44	46	47	49	53	63	70	71	
75	1	6	16	21	25	31	36	46	51	61
	66									
76	1	4	5	9	16	17	20	24	25	28
	36	44	45	49	57	61	64	68	73	
77	1	4	9	11	14	15	16	22	23	25
	36	37	42	44	49	53	56	58	60	64
	67	70	71							
78	1	3	9	13	16	22	27	39	40	42
	48	52	55	61	66					
79	1	2	4	5	8	9	10	11	13	16
	18	19	20	21	22	23	25	26	31	32
	36	38	40	42	44	45	46	49	50	51
	52	55	62	64	65	67	72	73	76	
80	1	16	65							
81	1	4	7	10	13	16	19	22	25	28
	31	34	37	40	43	46	49	52	55	58
	61	64	67	70	73	76	79			
82	1	4	10	16	18	23	25	31	37	40
	41	42	45	51	57	59	64	66	72	78
	81									
83	1	3	4	7	9	10	11	12	16	17
	21	23	25	26	27	28	29	30	31	33
	36	37	38	40	41	44	48	49	51	59
	61	63	64	65	68	69	70	75	77	78
	81									

QUARTIC RESIDUES

m	QUARTIC RESIDUES									
84	1	4	9	16	21	25	28	36	37	49
	57	60	64	72	81					
85	1	16	21	30	35	50	51	55	81	
86	1	4	6	9	10	11	13	14	15	16
	17	21	23	24	25	31	35	36	38	40
	41	43	44	47	49	52	53	54	56	57
	58	59	60	64	66	67	68	74	78	79
	81	83	84							
87	1	7	16	24	25	30	36	45	49	52
	54	58	78	81	82					
88	1	9	16	25	33	48	49	56	64	80
	81									
89	1	2	4	8	11	16	22	25	32	39
	44	45	50	57	64	67	73	78	81	85
	87	88								
90	1	10	16	25	31	36	40	45	46	55
	61	70	76	81	85					
91	1	9	14	16	22	29	35	39	42	53
	65	74	78	79	81					
92	1	4	8	9	12	13	16	24	25	29
	32	36	41	48	49	52	64	69	72	73
	77	81	85							
93	1	4	7	9	10	16	18	19	25	28
	31	33	36	39	40	45	49	51	63	64
	66	67	69	70	72	76	78	81	82	87
	90									
94	1	2	3	4	6	7	8	9	12	14
	16	17	18	21	24	25	27	28	32	34
	36	37	42	47	48	49	50	51	53	54
	55	56	59	61	63	64	65	68	71	72
	74	75	79	81	83	84	89			
95	1	5	6	11	16	20	25	26	30	35
	36	45	55	61	66	76	80	81	85	
96	1	16	33	48	49	64	81			
97	1	4	6	9	16	22	24	33	35	36
	43	47	50	54	61	62	64	73	75	81
	88	91	93	96						
98	1	2	4	8	9	11	15	16	18	22
	23	25	29	30	32	36	37	39	43	44
	46	49	50	51	53	57	58	60	64	65
	67	71	72	74	78	79	81	85	86	88
	92	93	95							
99	1	4	9	16	22	25	27	31	34	36
	37	45	49	55	58	64	67	70	81	82
	88	91	97							
100	1	16	21	25	36	41	56	61	76	81
	96									

CONVERSE OF FERMAT'S THEOREM

The following are illustrative examples of the so-called converse of Fermat's Theorem in which for a composite modulus m and (a,m) = 1,

$$a^{m-1} \equiv 1 \pmod{m}$$

MODULUS	VALUES OF a											
65	8	12	14	18	21	27	31	34	38	44	47	51
	53	57										
91	3	4	9	10	12	16	17	22	23	25	27	29
	30	36	38	40	43	48	51	53	55	61	62	64
	66	68	69	74	75	79	81	82	87	88		
145	12	17	28	41	46	57	59					
217	5	6	25	26	30	32	36	37	57	61	67	68
	87	88	92	94	99							
273	8	34	64	83	92	125						
289	38	40	65	75								
385	12	23	32	34	43	54	67	76	78	87	89	
451	4	10	16	18	23	25	31	37	40	42	45	51
	57	59	64	72	78	81	83	86	92	98	100	
465	32	61	92	94								
469	29	30	37	38	66	68						
481	6	8	10	11	14	23	36	38	43	47	48	51
	60	63	64	66	68	73	75	80	82	84	85	88
	97	100										
529	28	42	63	96								
561	ALL VALUES RELATIVELY PRIME TO 561											
645	2	4	8	11	16	22	32	41	44	47	59	64
	82	88	94	97								
721	46	47	57									
781	5	14	17	25	46	54	57	70	72	76	85	96
793	11	14	21	29	32	40	47	48	50	60	62	72
	74	75	82	90	93							
833	48	50	97	99								

In the following table, a = 2 throughout. Given are the factorization of m, the powers (d) to which the factors belong individually, the power d(m) to which 2 belongs mod m and $\phi(m)$, Euler's totient function.

m	FACTORS	d FOR FACTORS	d(m)	$\phi(m)$
341	11*31	10 5	10	300
561	3*11*17	2 10 8	40	320
645	3*5*43	2 4 14	28	336
1105	5*13*17	4 12 8	24	768
1247	29*43	28 14	28	1176
1387	19*73	18 9	18	1296
1729	7*13*19	3 12 18	36	1296
1905	3*5*127	2 4 7	28	1008
2047	23*89	11 11	11	1936
2465	5*17*29	4 8 28	56	1792
2701	37*73	36 9	36	2592
2821	7*13*31	3 12 5	60	2160
3277	29*113	28 28	28	3136
4033	37*109	36 36	36	3888
4369	17*257	8 16	16	4096
4681	31*151	5 15	15	4500
5461	43*127	14 7	14	5292
6601	7*23*41	3 11 20	660	5280
7957	73*109	9 36	36	7776
8321	53*157	52 52	52	8112
8481	3*11*257	2 10 16	80	5120
8911	7*19*67	3 18 66	198	7128
10261	31*331	5 30	30	9900
13981	11*31*41	10 5 20	20	12000
14491	43*337	14 21	42	14112
15709	23*683	11 22	22	15004
18705	3*5*29*43	2 4 28 14	28	9408
18721	97*193	48 96	96	18432
31417	89*353	11 88	88	30976
35333	89*397	11 44	44	34848
42799	127*337	7 21	21	42336
49981	151*331	15 30	30	49500
55245	3*5*29*127	2 4 28 7	28	28224
60701	101*601	100 25	100	60000
60787	89*683	11 22	22	60016
65281	97*673	48 48	48	64512
72885	3*5*43*113	2 4 14 28	28	37632
113201	11*41*251	10 20 50	100	100000
150851	251*601	50 25	50	150000
158369	29*43*127	28 14 7	28	148176

CONVERSE OF FERMAT'S THEOREM

a = 3

m	FACTORS	d FOR FACTORS	d(m)	ϕ(m)
91	7*13	6 3	6	72
671	11*61	5 10	10	600
703	19*37	18 18	18	648
949	13*73	3 12	12	864
1541	23*67	11 22	22	1452
1729	7*13*19	6 3 18	18	1296
1891	31*61	30 10	30	1800
2821	7*13*31	6 3 30	30	2160
3281	17*193	16 16	16	3072
3367	7*13*37	6 3 18	18	2592
3751	11*11*31	5 30	30	3300
5551	7*13*61	6 3 10	30	4320
7381	11*11*61	5 10	10	6600
8401	31*271	30 30	30	8100
11011	7*11*11*13	6 5 3	30	7920
12403	79*157	78 78	78	12168
14383	19*757	18 9	18	13608
15203	23*661	11 22	22	14520
16531	61*271	10 30	30	16200
18721	97*193	48 16	48	18432
23521	43*547	42 14	42	22932
24661	7*13*271	6 3 30	30	19440
28009	37*757	18 9	18	27216
30857	59*523	29 58	58	30276
31621	103*307	34 34	34	31212
31697	29*1093	28 7	28	30576
32791	11*11*271	5 30	30	29700
38503	139*277	138 69	138	38088
44287	67*661	22 22	22	43560
47197	109*433	27 27	27	46656
49051	181*271	45 30	90	48600
55969	97*577	48 48	48	55296
63139	103*613	51 102	102	62424
63973	7*13*19*37	6 3 18 18	18	46656
68887	7*13*757	6 3 9	18	54432
72041	61*1181	10 20	20	70800
79003	199*397	198 198	198	78408
83333	167*499	83 166	166	82668
88573	23*3851	11 11	11	84700
88831	211*421	210 105	210	88200

CONVERSE OF FERMAT'S THEOREM

a = 5

m	FACTORS	d FOR FACTORS		d(m)	ϕ(m)
781	11*71	5	5	5	700
1541	23*67	22	22	22	1452
1891	31*61	3	30	30	1800
5461	43*127	42	42	42	5292
5731	11*521	5	10	10	5200
7813	13*601	4	12	12	7200
9881	41*241	20	40	40	9600
13021	29*449	14	14	14	12544
14981	71*211	5	35	35	14700
15751	19*829	9	9	9	14904
16297	43*379	42	21	42	15876
17767	109*163	27	54	54	17496
21361	41*521	20	10	20	20800
29539	109*271	27	27	27	29160
30673	37*829	36	9	36	29808
36991	71*521	5	10	10	36400
38081	113*337	112	112	112	37632
40501	101*401	25	25	25	40000
42127	103*409	102	17	102	41616
44173	163*271	54	27	54	43740
44801	71*631	5	35	35	44100
50737	113*449	112	14	112	50176
53083	109*487	27	54	54	52488
56033	137*409	136	17	136	55488
68251	131*521	65	10	130	67600
79381	163*487	54	54	54	78732
88831	211*421	35	210	210	88200
100651	251*401	25	25	25	100000
112141	127*883	42	126	126	111132
125561	241*521	40	10	40	124800
133141	211*631	35	35	35	132300
144841	241*601	40	12	120	144000
146611	271*541	27	135	135	145800
151313	337*449	112	14	112	150528
188113	313*601	8	12	24	187200
197633	257*769	256	128	256	196608
216457	233*929	232	232	232	215296
265651	421*631	210	35	210	264600
318551	461*691	115	115	115	317400
347777	457*761	152	38	152	346560

CONVERSE OF FERMAT'S THEOREM

a = 7

m	FACTORS	d FOR FACTORS	d(m)	ϕ(m)
703	19*37	3 9	9	648
2101	11*191	10 10	10	1900
2353	13*181	12 12	12	2160
3277	29*113	7 14	14	3136
6697	37*181	9 12	36	6480
8321	53*157	26 52	52	8112
11041	61*181	60 12	60	10800
11521	41*281	40 20	40	11200
26419	29*911	7 14	14	25480
29857	73*409	24 24	24	29376
29891	71*421	70 70	70	29400
33227	149*223	74 37	74	32856
38503	139*277	69 138	138	38088
50737	113*449	14 112	112	50176
76049	113*673	14 112	112	75264
76627	19*37*109	3 9 27	27	69984
78937	193*409	24 24	24	78336
79381	163*487	162 162	162	78732
88399	109*811	27 27	27	87480
88831	211*421	210 70	210	88200
97921	181*541	12 90	180	97200
102943	113*911	14 14	14	101920
109061	191*571	10 190	190	108300
116003	311*373	31 62	62	115320
132193	163*811	162 27	162	131220
146611	271*541	135 90	270	145800
188191	307*613	153 153	153	187272
188501	251*751	125 250	250	187500
197633	257*769	256 256	256	196608
219781	271*811	135 27	135	218700
227767	239*953	238 238	238	226576
229633	277*829	138 276	276	228528
286903	379*757	378 189	378	285768
302177	449*673	112 112	112	301056
385003	439*877	73 219	219	383688
394957	487*811	162 27	162	393660
570133	19*37*811	9 9 27	27	524880

WILSON QUOTIENTS

The Wilson Quotients W_p are defined as the least non-negative residues modulo p of $[(p-1)!+1]/p$ where p is prime. Wilson Primes are solutions of the equation $W_p = 0$.

p	W_p	p	W_p	p	W_p	p	W_p
3	1	223	180	491	318	809	774
5	0	227	113	499	422	811	500
7	5	229	131	503	458	821	690
11	1	233	169	509	379	823	99
13	0	239	107	521	170	827	341
17	5	241	196	523	10	829	39
19	2	251	214	541	194	839	271
23	8	257	177	547	397	853	701
29	18	263	73	557	96	857	229
31	19	269	121	563	0	859	512
37	7	271	170	569	329	863	716
41	16	277	25	571	416	877	691
43	13	281	277	577	431	881	408
47	6	283	164	587	329	883	429
53	34	293	231	593	249	887	435
59	27	307	271	599	382	907	829
61	56	311	259	601	120	911	862
67	12	313	288	607	394	919	361
71	69	317	110	613	50	929	312
73	11	331	164	617	600	937	52
79	73	337	41	619	332	941	182
83	20	347	235	631	615	947	547
89	70	349	8	641	475	953	909
97	70	353	151	643	500	967	257
101	72	359	184	647	490	971	547
103	57	367	100	653	456	977	76
107	1	373	224	659	340	983	55
109	30	379	133	661	431	991	778
113	95	383	122	673	624	997	40
127	71	389	234	677	143	1009	366
131	119	397	219	683	327	1013	733
137	56	401	235	691	330	1019	608
139	67	409	151	701	599	1021	11
149	94	419	375	709	644	1031	333
151	86	421	7	719	525	1033	41
157	151	431	392	727	79	1039	808
163	108	433	371	733	307	1049	564
167	21	439	375	739	156	1051	81
173	106	443	149	743	666	1061	926
179	48	449	412	751	660	1063	368
181	72	457	246	757	521	1069	391
191	159	461	55	761	466	1087	912
193	35	463	417	769	36	1091	858
197	147	467	77	773	758	1093	851
199	118	479	299	787	117	1097	843
211	173	487	89	797	431	1103	894

WILSON QUOTIENTS

p	W_p	p	W_p	p	W_p	p	W_p
1109	64	1487	821	1871	1410	2267	359
1117	237	1489	648	1873	1564	2269	856
1123	1069	1493	1298	1877	726	2273	754
1129	31	1499	609	1879	832	2281	741
1151	146	1511	1163	1889	100	2287	1997
1153	260	1523	250	1901	487	2293	787
1163	581	1531	478	1907	1527	2297	906
1171	657	1543	829	1913	693	2309	1761
1181	1067	1549	1143	1931	1609	2311	138
1187	2	1553	1223	1933	612	2333	1079
1193	270	1559	72	1949	149	2339	2333
1201	985	1567	132	1951	1820	2341	1828
1213	1074	1571	1129	1973	1681	2347	1688
1217	98	1579	1522	1979	689	2351	841
1223	1076	1583	516	1987	1221	2357	1176
1229	804	1597	1481	1993	1894	2371	1820
1231	871	1601	203	1997	15	2377	1523
1237	374	1607	211	1999	190	2381	650
1249	270	1609	722	2003	1131	2383	406
1259	712	1613	8	2011	1872	2389	930
1277	1276	1619	692	2017	1835	2393	304
1279	551	1621	982	2027	776	2399	2311
1283	821	1627	943	2029	1765	2411	1296
1289	1120	1637	887	2039	839	2417	2317
1291	1253	1657	24	2053	2027	2423	1183
1297	242	1663	401	2063	1994	2437	1759
1301	1225	1667	1489	2069	412	2441	1116
1303	50	1669	1415	2081	575	2447	1948
1307	78	1693	274	2083	883	2459	1644
1319	216	1697	27	2087	1769	2467	879
1321	735	1699	999	2089	709	2473	2092
1327	895	1709	781	2099	1983	2477	1257
1361	81	1721	489	2111	1822	2503	644
1367	305	1723	584	2113	302	2521	635
1373	81	1733	1126	2129	1568	2531	1833
1381	57	1741	213	2131	1610	2539	1385
1399	34	1747	294	2137	874	2543	510
1409	1075	1753	321	2141	218	2549	912
1423	1410	1759	539	2143	996	2551	1512
1427	1199	1777	1772	2153	905	2557	930
1429	1024	1783	917	2161	1146	2579	2552
1433	447	1787	279	2179	1318	2591	990
1439	250	1789	844	2203	963	2593	916
1447	938	1801	963	2207	1404	2609	1433
1451	1293	1811	299	2213	1032	2617	540
1453	1308	1823	1577	2221	1034	2621	1549
1459	417	1831	1423	2237	1572	2633	2418
1471	113	1847	844	2239	939	2647	831
1481	440	1861	151	2243	580	2657	2031
1483	1439	1867	239	2251	1492	2659	2115

MOEBIUS FUNCTION

The Moebius function $\mu(n)$ is defined as follows:
$\mu(1) = 1$, $\mu(n) = 0$ if some square greater than 1 divides n,

$$\mu(n) = (-1)^r$$

if n is a square-free integer the product of r primes.

	0	1	2	3	4	5	6	7	8	9
0		1	-1	-1	0	-1	1	-1	0	0
1	1	-1	0	-1	1	1	0	-1	0	-1
2	0	1	1	-1	0	0	1	0	0	-1
3	-1	-1	0	1	1	1	0	-1	1	1
4	0	-1	-1	-1	0	0	1	-1	0	0
5	0	1	0	-1	0	1	0	1	1	-1
6	0	-1	1	0	0	1	-1	-1	0	1
7	-1	-1	0	-1	1	0	0	1	-1	-1
8	0	0	1	-1	0	1	1	1	0	-1
9	0	1	0	1	1	1	0	-1	0	0
10	0	-1	-1	-1	0	-1	1	-1	0	-1
11	-1	1	0	-1	-1	1	0	0	1	1
12	0	0	1	1	0	0	0	-1	0	1
13	-1	-1	0	1	1	0	0	-1	-1	-1
14	0	1	1	1	0	1	1	0	0	-1
15	0	-1	0	0	-1	1	0	-1	1	1
16	0	1	0	-1	0	-1	1	-1	0	0
17	-1	0	0	-1	-1	0	0	1	1	-1
18	0	-1	-1	1	0	1	-1	1	0	0
19	-1	-1	0	-1	1	-1	0	-1	0	-1
20	0	1	1	1	0	1	1	0	0	1
21	1	-1	0	1	1	1	0	1	1	1
22	0	1	-1	-1	0	0	1	-1	0	-1
23	-1	-1	0	-1	0	1	0	1	-1	-1
24	0	-1	0	0	0	0	-1	1	0	1
25	0	-1	0	1	1	-1	0	-1	-1	1
26	0	0	1	-1	0	1	-1	1	0	-1
27	0	-1	0	-1	1	0	0	-1	1	0
28	0	-1	-1	-1	0	-1	-1	1	0	0
29	-1	1	0	-1	0	1	0	0	1	1
30	0	1	1	1	0	1	0	-1	0	1
31	-1	-1	0	-1	1	0	0	-1	-1	1
32	0	1	-1	1	0	0	1	1	0	1
33	1	-1	0	0	1	1	0	-1	0	1
34	0	1	0	0	0	-1	1	-1	0	-1
35	0	0	0	-1	-1	1	0	-1	1	-1
36	0	0	1	0	0	1	-1	-1	0	0
37	-1	1	0	-1	-1	0	0	1	0	-1
38	0	1	1	-1	0	-1	1	0	0	-1
39	1	1	0	1	1	1	0	-1	1	-1
40	0	-1	-1	1	0	0	-1	1	0	-1
41	-1	1	0	1	0	1	0	1	-1	-1
42	0	-1	1	0	0	0	-1	1	0	-1
43	-1	-1	0	-1	-1	-1	0	1	-1	-1
44	0	0	-1	-1	0	1	1	1	0	-1
45	0	1	0	1	1	-1	0	-1	1	0

MOEBIUS FUNCTION

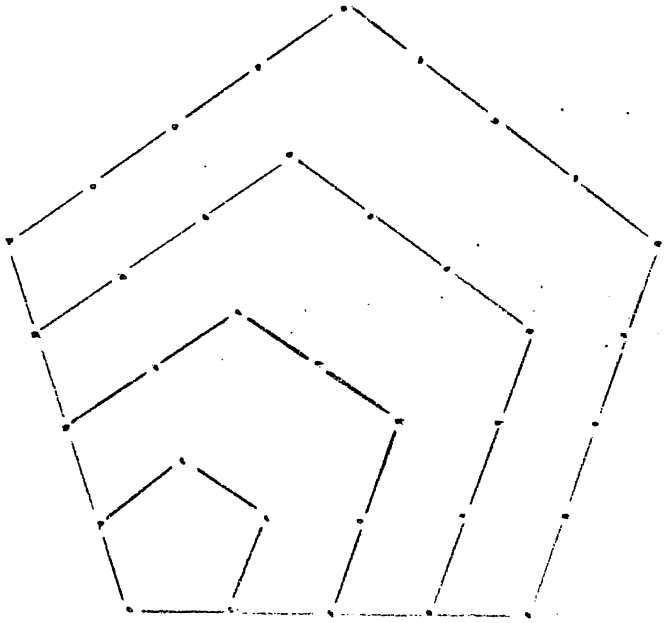
	0	1	2	3	4	5	6	7	8	9
46	0	-1	1	-1	0	-1	1	-1	0	1
47	-1	1	0	1	-1	0	0	0	1	-1
48	0	1	1	-1	0	1	0	-1	0	1
49	0	-1	0	1	-1	0	0	1	-1	-1
50	0	1	1	-1	0	1	-1	0	0	-1
51	1	1	0	0	1	1	0	1	-1	1
52	0	-1	0	-1	0	0	1	1	0	0
53	-1	0	0	1	-1	1	0	1	1	0
54	0	-1	1	1	0	1	1	-1	0	0
55	0	1	0	1	1	-1	0	-1	0	1
56	0	-1	1	-1	0	1	1	0	0	-1
57	1	-1	0	1	-1	0	0	-1	0	1
58	0	1	-1	1	0	0	1	-1	0	1
59	-1	1	0	-1	0	-1	0	1	-1	-1
60	0	-1	-1	0	0	0	-1	-1	0	-1
61	-1	1	0	-1	1	-1	0	-1	-1	-1
62	0	0	1	1	0	0	1	-1	0	1
63	0	-1	0	1	1	1	0	0	-1	0
64	0	-1	-1	-1	0	-1	-1	-1	0	1
65	0	-1	0	-1	-1	1	0	0	-1	-1
66	0	-1	1	-1	0	-1	0	1	0	1
67	-1	1	0	-1	1	0	0	-1	-1	1
68	0	1	-1	-1	0	1	0	1	0	1
69	1	-1	0	0	1	1	0	1	1	1
70	0	-1	0	1	0	-1	1	1	0	-1
71	-1	0	0	1	1	-1	0	1	1	-1
72	0	1	0	1	0	0	0	-1	0	0
73	-1	1	0	-1	1	0	0	1	0	-1
74	0	-1	-1	-1	0	1	1	0	0	1
75	0	-1	0	1	-1	1	0	-1	1	-1
76	0	-1	-1	1	0	0	1	1	0	-1
77	1	1	0	-1	0	0	0	-1	1	1
78	0	1	-1	0	0	1	-1	-1	0	1
79	-1	1	0	1	1	-1	0	-1	1	1
80	0	0	1	1	0	-1	-1	1	0	-1
81	0	-1	0	1	-1	1	0	1	1	0
82	0	-1	-1	-1	0	0	-1	-1	0	-1
83	-1	1	0	0	-1	1	0	0	1	-1
84	0	0	1	1	0	0	0	0	0	1
85	0	1	0	-1	-1	0	0	-1	1	-1
86	0	-1	1	-1	0	1	1	0	0	1
87	1	1	0	0	-1	0	0	-1	1	1
88	0	-1	0	-1	0	-1	1	-1	0	1
89	-1	0	0	1	-1	1	0	-1	1	1
90	0	1	-1	-1	0	1	-1	-1	0	0

MOEBIUS FUNCTION

	0	1	2	3	4	5	6	7	8	9
91	1	-1	0	1	1	-1	0	1	0	-1
92	0	1	1	1	0	0	1	0	0	-1
93	1	0	0	1	1	-1	0	-1	-1	1
94	0	-1	-1	1	0	0	-1	-1	0	1
95	0	1	0	-1	0	1	0	-1	1	1
96	0	0	-1	0	0	1	1	-1	0	-1
97	-1	-1	0	1	1	0	0	-1	-1	1
98	0	0	1	-1	0	1	-1	-1	0	1
99	0	-1	0	1	-1	1	0	-1	1	0

POLYGONAL NUMBERS

Polygonal numbers relate certain sequences to sets of dots forming geometric configurations. The manner of building up such sequences may be illustrated by pentagonal numbers. The first of any set of polygonal numbers is 1, corresponding to a single dot. The second pentagonal number is 5, corresponding to the five dots at the vertices of a pentagon. Note that this pentagon has two dots on a side. When another set of dots (gnomon) is added to form a pentagon with three dots on a side, the total number of dots in the configuration is 12. The number of dots added at each step form an arithmetic progression: 4,7,10,13,.....so that the sum, the polygonal number is an expression of the second degree in n.



The formulas for the polygonal numbers given in these tables follow.

TRIANGULAR	$n(n+1)/2$	HEPTAGONAL	$n(5n-3)/2$
SQUARE	n^2	OCTAGONAL	$n(3n-2)$
PENTAGONAL	$n(3n-1)/2$	NINE-SIDED	$n(7n-5)/2$
HEXAGONAL	$n(2n-1)$	TEN-SIDED	$n(4n-3)$

The general formula for an r-sided polygonal number is:

$$n[(r-2)n - r+4]/2$$

POLYGONAL NUMBERS

	TYPE							
n	3	4	5	6	7	8	9	10
1	1	1	1	1	1	1	1	1
2	3	4	5	6	7	8	9	10
3	6	9	12	15	18	21	24	27
4	10	16	22	28	34	40	46	52
5	15	25	35	45	55	65	75	85
6	21	36	51	66	81	96	111	126
7	28	49	70	91	112	133	154	175
8	36	64	92	120	148	176	204	232
9	45	81	117	153	189	225	261	297
10	55	100	145	190	235	280	325	370
11	66	121	176	231	286	341	396	451
12	78	144	210	276	342	408	474	540
13	91	169	247	325	403	481	559	637
14	105	196	287	378	469	560	651	742
15	120	225	330	435	540	645	750	855
16	136	256	376	496	616	736	856	976
17	153	289	425	561	697	833	969	1105
18	171	324	477	630	783	936	1089	1242
19	190	361	532	703	874	1045	1216	1387
20	210	400	590	780	970	1160	1350	1540
21	231	441	651	861	1071	1281	1491	1701
22	253	484	715	946	1177	1408	1639	1870
23	276	529	782	1035	1288	1541	1794	2047
24	300	576	852	1128	1404	1680	1956	2232
25	325	625	925	1225	1525	1825	2125	2425
26	351	676	1001	1326	1651	1976	2301	2626
27	378	729	1080	1431	1782	2133	2484	2835
28	406	784	1162	1540	1918	2296	2674	3052
29	435	841	1247	1653	2059	2465	2871	3277
30	465	900	1335	1770	2205	2640	3075	3510
31	496	961	1426	1891	2356	2821	3286	3751
32	528	1024	1520	2016	2512	3008	3504	4000
33	561	1089	1617	2145	2673	3201	3729	4257
34	595	1156	1717	2278	2839	3400	3961	4522
35	630	1225	1820	2415	3010	3605	4200	4795
36	666	1296	1926	2556	3186	3816	4446	5076
37	703	1369	2035	2701	3367	4033	4699	5365
38	741	1444	2147	2850	3553	4256	4959	5662
39	780	1521	2262	3003	3744	4485	5226	5967
40	820	1600	2380	3160	3940	4720	5500	6280

POLYGONAL NUMBERS

TYPE

n	3	4	5	6	7	8	9	10
41	861	1681	2501	3321	4141	4961	5781	6601
42	903	1764	2625	3486	4347	5208	6069	6930
43	946	1849	2752	3655	4558	5461	6364	7267
44	990	1936	2882	3828	4774	5720	6666	7612
45	1035	2025	3015	4005	4995	5985	6975	7965
46	1081	2116	3151	4186	5221	6256	7291	8326
47	1128	2209	3290	4371	5452	6533	7614	8695
48	1176	2304	3432	4560	5688	6816	7944	9072
49	1225	2401	3577	4753	5929	7105	8281	9457
50	1275	2500	3725	4950	6175	7400	8625	9850
51	1326	2601	3876	5151	6426	7701	8976	10251
52	1378	2704	4030	5356	6682	8008	9334	10660
53	1431	2809	4187	5565	6943	8321	9699	11077
54	1485	2916	4347	5778	7209	8640	10071	11502
55	1540	3025	4510	5995	7480	8965	10450	11935
56	1596	3136	4676	6216	7756	9296	10836	12376
57	1653	3249	4845	6441	8037	9633	11229	12825
58	1711	3364	5017	6670	8323	9976	11629	13282
59	1770	3481	5192	6903	8614	10325	12036	13747
60	1830	3600	5370	7140	8910	10680	12450	14220
61	1891	3721	5551	7381	9211	11041	12871	14701
62	1953	3844	5735	7626	9517	11408	13299	15190
63	2016	3969	5922	7875	9828	11781	13734	15687
64	2080	4096	6112	8128	10144	12160	14176	16192
65	2145	4225	6305	8385	10465	12545	14625	16705
66	2211	4356	6501	8646	10791	12936	15081	17226
67	2278	4489	6700	8911	11122	13333	15544	17755
68	2346	4624	6902	9180	11458	13736	16014	18292
69	2415	4761	7107	9453	11799	14145	16491	18837
70	2485	4900	7315	9730	12145	14560	16975	19390
71	2556	5041	7526	10011	12496	14981	17466	19951
72	2628	5184	7740	10296	12852	15408	17964	20520
73	2701	5329	7957	10585	13213	15841	18469	21097
74	2775	5476	8177	10878	13579	16280	18981	21682
75	2850	5625	8400	11175	13950	16725	19500	22275
76	2926	5776	8626	11476	14326	17176	20026	22876
77	3003	5929	8855	11781	14707	17633	20559	23485
78	3081	6084	9087	12090	15093	18096	21099	24102
79	3160	6241	9322	12403	15484	18565	21646	24727
80	3240	6400	9560	12720	15880	19040	22200	25360

POLYGONAL NUMBERS

TYPE

n	3	4	5	6	7	8	9	10
81	3321	6561	9801	13041	16281	19521	22761	26001
82	3403	6724	10045	13366	16687	20008	23329	26650
83	3486	6889	10292	13695	17098	20501	23904	27307
84	3570	7056	10542	14028	17514	21000	24486	27972
85	3655	7225	10795	14365	17935	21505	25075	28645
86	3741	7396	11051	14706	18361	22016	25671	29326
87	3828	7569	11310	15051	18792	22533	26274	30015
88	3916	7744	11572	15400	19228	23056	26884	30712
89	4005	7921	11837	15753	19669	23585	27501	31417
90	4095	8100	12105	16110	20115	24120	28125	32130
91	4186	8281	12376	16471	20566	24661	28756	32851
92	4278	8464	12650	16836	21022	25208	29394	33580
93	4371	8649	12927	17205	21483	25761	30039	34317
94	4465	8836	13207	17578	21949	26320	30691	35062
95	4560	9025	13490	17955	22420	26885	31350	35815
96	4656	9216	13776	18336	22896	27456	32016	36576
97	4753	9409	14065	18721	23377	28033	32689	37345
98	4851	9604	14357	19110	23863	28616	33369	38122
99	4950	9801	14652	19503	24354	29205	34056	38907
100	5050	10000	14950	19900	24850	29800	34750	39700
101	5151	10201	15251	20301	25351	30401	35451	40501
102	5253	10404	15555	20706	25857	31008	36159	41310
103	5356	10609	15862	21115	26368	31621	36874	42127
104	5460	10816	16172	21528	26884	32240	37596	42952
105	5565	11025	16485	21945	27405	32865	38325	43785
106	5671	11236	16801	22366	27931	33496	39061	44626
107	5778	11449	17120	22791	28462	34133	39804	45475
108	5886	11664	17442	23220	28998	34776	40554	46332
109	5995	11881	17767	23653	29539	35425	41311	47197
110	6105	12100	18095	24090	30085	36080	42075	48070
111	6216	12321	18426	24531	30636	36741	42846	48951
112	6328	12544	18760	24976	31192	37408	43624	49840
113	6441	12769	19097	25425	31753	38081	44409	50737
114	6555	12996	19437	25878	32319	38760	45201	51642
115	6670	13225	19780	26335	32890	39445	46000	52555
116	6786	13456	20126	26796	33466	40136	46806	53476
117	6903	13689	20475	27261	34047	40833	47619	54405
118	7021	13924	20827	27730	34633	41536	48439	55342
119	7140	14161	21182	28203	35224	42245	49266	56287
120	7260	14400	21540	28680	35820	42960	50100	57240

PYRAMIDAL NUMBERS

Pyramidal numbers are obtained by summing the polygonal numbers of a given type.

The formulas for the pyramidal numbers in the tables that follow are listed below.

TRIANGULAR	$n(n+1)(n+2)/6$
SQUARE	$n(n+1)(2n+1)/6$
PENTAGONAL	$n^2(n+1)/2$
HEXAGONAL	$n(n+1)(4n-1)/6$
HEPTAGONAL	$n(n+1)(5n-2)/6$
OCTAGONAL	$n(n+1)(2n-1)/2$
NINE-SIDED	$n(n+1)(7n-4)/6$
TEN-SIDED	$n(n+1)(8n-5)/6$

PYRAMIDAL NUMBERS

TYPE

n	3	4	5	6	7	8	9	10
1	1	1	1	1	1	1	1	1
2	4	5	6	7	8	9	10	11
3	10	14	18	22	26	30	34	38
4	20	30	40	50	60	70	80	90
5	35	55	75	95	115	135	155	175
6	56	91	126	161	196	231	266	301
7	84	140	196	252	308	364	420	476
8	120	204	288	372	456	540	624	708
9	165	285	405	525	645	765	885	1005
10	220	385	550	715	880	1045	1210	1375
11	286	506	726	946	1166	1386	1606	1826
12	364	650	936	1222	1508	1794	2080	2366
13	455	819	1183	1547	1911	2275	2639	3003
14	560	1015	1470	1925	2380	2835	3290	3745
15	680	1240	1800	2360	2920	3480	4040	4600
16	816	1496	2176	2856	3536	4216	4896	5576
17	969	1785	2601	3417	4233	5049	5865	6681
18	1140	2109	3078	4047	5016	5985	6954	7923
19	1330	2470	3610	4750	5890	7030	8170	9310
20	1540	2870	4200	5530	6860	8190	9520	10850
21	1771	3311	4851	6391	7931	9471	11011	12551
22	2024	3795	5566	7337	9108	10879	12650	14421
23	2300	4324	6348	8372	10396	12420	14444	16468
24	2600	4900	7200	9500	11800	14100	16400	18700
25	2925	5525	8125	10725	13325	15925	18525	21125
26	3276	6201	9126	12051	14976	17901	20826	23751
27	3654	6930	10206	13482	16758	20034	23310	26586
28	4060	7714	11368	15022	18676	22330	25984	29638
29	4495	8555	12615	16675	20735	24795	28855	32915
30	4960	9455	13950	18445	22940	27435	31930	36425
31	5456	10416	15376	20336	25296	30256	35216	40176
32	5984	11440	16896	22352	27808	33264	38720	44176
33	6545	12529	18513	24497	30481	36465	42449	48433
34	7140	13685	20230	26775	33320	39865	46410	52955
35	7770	14910	22050	29190	36330	43470	50610	57750
36	8436	16206	23976	31746	39516	47286	55056	62826
37	9139	17575	26011	34447	42883	51319	59755	68191
38	9880	19019	28158	37297	46436	55575	64714	73853
39	10660	20540	30420	40300	50180	60060	69940	79820
40	11480	22140	32800	43460	54120	64780	75440	86100

PYRAMIDAL NUMBERS

TYPE

n	3	4	5	6	7	8	9	10
41	12341	23821	35301	46781	58261	69741	81221	92701
42	13244	25585	37926	50267	62608	74949	87290	99631
43	14190	27434	40678	53922	67166	80410	93654	106898
44	15180	29370	43560	57750	71940	86130	100320	114510
45	16215	31395	46575	61755	76935	92115	107295	122475
46	17296	33511	49726	65941	82156	98371	114586	130801
47	18424	35720	53016	70312	87608	104904	122200	139496
48	19600	38024	56448	74872	93296	111720	130144	148568
49	20825	40425	60025	79625	99225	118825	138425	158025
50	22100	42925	63750	84575	105400	126225	147050	167875
51	23426	45526	67626	89726	111826	133926	156026	178126
52	24804	48230	71656	95082	118508	141934	165360	188786
53	26235	51039	75843	100647	125451	150255	175059	199863
54	27720	53955	80190	106425	132660	158895	185130	211365
55	29260	56980	84700	112420	140140	167860	195580	223300
56	30856	60116	89376	118636	147896	177156	206416	235676
57	32509	63365	94221	125077	155933	186789	217645	248501
58	34220	66729	99238	131747	164256	196765	229274	261783
59	35990	70210	104430	138650	172870	207090	241310	275530
60	37820	73810	109800	145790	181780	217770	253760	289750
61	39711	77531	115351	153171	190991	228811	266631	304451
62	41664	81375	121086	160797	200508	240219	279930	319641
63	43680	85344	127008	168672	210336	252000	293664	335328
64	45760	89440	133120	176800	220480	264160	307840	351520
65	47905	93665	139425	185185	230945	276705	322465	368225
66	50116	98021	145926	193831	241736	289641	337546	385451
67	52394	102510	152626	202742	252858	302974	353090	403206
68	54740	107134	159528	211922	264316	316710	369104	421498
69	57155	111895	166635	221375	276115	330855	385595	440335
70	59640	116795	173950	231105	288260	345415	402570	459725
71	62196	121836	181476	241116	300756	360396	420036	479676
72	64824	127020	189216	251412	313608	375804	438000	500196
73	67525	132349	197173	261997	326821	391645	456469	521293
74	70300	137825	205350	272875	340400	407925	475450	542975
75	73150	143450	213750	284050	354350	424650	494950	565250
76	76076	149226	222376	295526	368676	441826	514976	588126
77	79079	155155	231231	307307	383383	459459	535535	611611
78	82160	161239	240318	319397	398476	477555	556634	635713
79	85320	167480	249640	331800	413960	496120	578280	660440
80	88560	173880	259200	344520	429840	515160	600480	685800

TABLE OF PRIMITIVE PYTHAGOREAN TRIANGLES

ARRANGED ACCORDING TO INCREASING AREAS

The sides of the right triangle A,B,C, are given by the formulas

$$A = 2mn, \quad B = m^2 - n^2, \quad C = m^2 + n^2.$$

m	n	A	B	C	AREA
2	1	4	3	5	6
3	2	12	5	13	30
4	1	8	15	17	60
4	3	24	7	25	84
5	4	40	9	41	180
5	2	20	21	29	210
6	1	12	35	37	210
6	5	60	11	61	330
8	1	16	63	65	504
7	6	84	13	85	546
7	2	28	45	53	630
8	7	112	15	113	840
7	4	56	33	65	924
10	1	20	99	101	990
9	8	144	17	145	1224
8	3	48	55	73	1320
9	2	36	77	85	1386
8	5	80	39	89	1560
10	9	180	19	181	1710
12	1	24	143	145	1716
11	10	220	21	221	2310
9	4	72	65	97	2340
11	2	44	117	125	2574
14	1	28	195	197	2730
10	3	60	91	109	2730
12	11	264	23	265	3036
10	7	140	51	149	3570
13	12	312	25	313	3900
16	1	32	255	257	4080
13	2	52	165	173	4290
11	4	88	105	137	4620
14	13	364	27	365	4914
11	8	176	57	185	5016
11	6	132	85	157	5610
18	1	36	323	325	5814
15	14	420	29	421	6090
15	2	60	221	229	6630
12	5	120	119	169	7140
16	15	480	31	481	7440
14	3	84	187	205	7854
13	4	104	153	185	7956
20	1	40	399	401	7980
12	7	168	95	193	7980
13	10	260	69	269	8970
17	16	544	33	545	8976
17	2	68	285	293	9690
13	6	156	133	205	10374

TABLE OF PRIMITIVE PYTHAGOREAN TRIANGLES

m	n	A	B	C	AREA
22	1	44	483	485	10626
18	17	612	35	613	10710
13	8	208	105	233	10920
14	11	308	75	317	11550
16	3	96	247	265	11856
14	5	140	171	221	11970
15	4	120	209	241	12540
19	18	684	37	685	12654
19	2	76	357	365	13566
24	1	48	575	577	13800
14	9	252	115	277	14490
20	19	760	39	761	14820
21	20	840	41	841	17220
26	1	52	675	677	17550
16	13	416	87	425	18096
21	2	84	437	445	18354
16	5	160	231	281	18480
17	4	136	273	305	18564
15	8	240	161	289	19320
22	21	924	43	925	19866
28	1	56	783	785	21924
17	14	476	93	485	22134
23	22	1012	45	1013	22770
16	7	224	207	305	23184
20	3	120	391	409	23460
16	11	352	135	377	23760
23	2	92	525	533	24150
16	9	288	175	337	25200
17	6	204	253	325	25806
24	23	1104	47	1105	25944
19	4	152	345	377	26220
18	5	180	299	349	26910
30	1	60	899	901	26970
25	24	1200	49	1201	29400
17	12	408	145	433	29580
17	8	272	225	353	30600
25	2	100	621	629	31050
22	3	132	475	493	31350
19	16	608	105	617	31920
17	10	340	189	389	32130
32	1	64	1023	1025	32736
26	25	1300	51	1301	33150
18	7	252	275	373	34650
21	4	168	425	457	35700
18	13	468	155	493	36270
19	6	228	325	397	37050
27	26	1404	53	1405	37206

TABLE OF PRIMITIVE PYTHAGOREAN TRIANGLES

m	n	A	B	C	AREA
20	17	680	111	689	37740
27	2	108	725	733	39150
34	1	68	1155	1157	39270
18	11	396	203	445	40194
28	27	1512	55	1513	41580
19	14	532	165	557	43890
19	8	304	297	425	45144
29	28	1624	57	1625	46284
36	1	72	1295	1297	46620
23	4	184	513	545	47196
29	2	116	837	845	48546
20	7	280	351	449	49140
19	12	456	217	505	49476
19	10	380	261	461	49590
22	5	220	459	509	50490
30	29	1740	59	1741	51330
22	19	836	123	845	51414
26	3	156	667	685	52026
38	1	76	1443	1445	54834
31	30	1860	61	1861	56730
20	9	360	319	481	57420
31	2	124	957	965	59334
23	20	920	129	929	59340
20	13	520	231	569	60060
25	4	200	609	641	60900
20	11	440	279	521	61380
21	16	672	185	697	62160
32	31	1984	63	1985	62496
21	8	336	377	505	63336
40	1	80	1599	1601	63960
28	3	168	775	793	65100
24	5	240	551	601	66120
22	7	308	435	533	66990
23	6	276	493	565	68034
33	32	2112	65	2113	68640
33	2	132	1085	1093	71610
21	10	420	341	541	71610
22	17	748	195	773	72930
42	1	84	1763	1765	74046
34	33	2244	67	2245	75174
27	4	216	713	745	77004
25	22	1100	141	1109	77550
22	9	396	403	565	79794
35	34	2380	69	2381	82110
26	5	260	651	701	84630
23	18	828	205	853	84870
44	1	88	1935	1937	85140

TABLE OF PRIMITIVE PYTHAGOREAN TRIANGLES

m	n	A	B	C	AREA
22	15	660	259	709	85470
35	2	140	1221	1229	85470
23	8	368	465	593	85560
26	23	1196	147	1205	87906
25	6	300	589	661	88350
24	7	336	527	625	88536
36	35	2520	71	2521	89460
22	13	572	315	653	90090
29	4	232	825	857	95700
37	36	2664	73	2665	97236
46	1	92	2115	2117	97290
32	3	192	1015	1033	97440
24	19	912	215	937	98040
23	10	460	429	629	98670
23	16	736	273	785	100464
37	2	148	1365	1373	101010
38	37	2812	75	2813	105450
23	12	552	385	673	106260
28	5	280	759	809	106260
23	14	644	333	725	107226
48	1	96	2303	2305	110544
28	25	1400	159	1409	111300
25	8	400	561	689	112200
39	38	2964	77	2965	114114
26	7	364	627	725	114114
34	3	204	1147	1165	116994
24	17	816	287	865	117096
31	4	248	945	977	117180
39	2	156	1517	1525	118326
24	11	528	455	697	120120
40	39	3120	79	3121	123240
29	26	1508	165	1517	124410
50	1	100	2499	2501	124950
24	13	624	407	745	126984
26	21	1092	235	1117	128310
41	40	3280	81	3281	132840
25	18	900	301	949	135450
41	2	164	1677	1685	137514
26	9	468	595	757	139230
29	6	348	805	877	140070
52	1	104	2703	2705	140556
33	4	264	1073	1105	141636
42	41	3444	83	3445	142926
27	8	432	665	793	143640
25	12	600	481	769	144300
27	22	1188	245	1213	145530
25	16	800	369	881	147600
25	14	700	429	821	150150
43	42	3612	85	3613	153510

PERFECT NUMBERS

In this table the even perfect numbers as presently known are given with their assigned number n.

n	p	Factored Form	Digital Form
1	2	$2(2^2-1)$	6
2	3	$2^2(2^3-1)$	28
3	5	$2^4(2^5-1)$	496
4	7	$2^6(2^7-1)$	8128
5	13	$2^{12}(2^{13}-1)$	33550336
6	17	$2^{16}(2^{17}-1)$	8589869056
7	19	$2^{18}(2^{19}-1)$	1374386913 28
8	31	$2^{30}(2^{31}-1)$	2305843008 139952128
9	61	$2^{60}(2^{61}-1)$	2658455991 5698317446 5469261595 3842176
10	89	$2^{88}(2^{89}-1)$	
11	107	$2^{106}(2^{107}-1)$	
12	127	$2^{126}(2^{127}-1)$	
13	521	$2^{520}(2^{521}-1)$	
14	607	$2^{606}(2^{607}-1)$	
15	1279	$2^{1278}(2^{1279}-1)$	
16	2203	$2^{2202}(2^{2203}-1)$	
17	2281	$2^{2280}(2^{2281}-1)$	
18	3217	$2^{3216}(2^{3217}-1)$	
19	4253	$2^{4252}(2^{4253}-1)$	
20	4423	$2^{4422}(2^{4423}-1)$	
21	9689	$2^{9688}(2^{9689}-1)$	
22	9941	$2^{9940}(2^{9941}-1)$	
23	11213	$2^{11212}(2^{11213}-1)$	
24	19937	$2^{19936}(2^{19937}-1)$	

MULTIPLY PERFECT NUMBERS

If the sum of all the divisors of N is mN, where m is an integer, then N is called a multiply perfect number of multiplicity m. On this basis, the perfect numbers are of multiplicity 2.

In the following table based on the work of R.D. Carmichael and T.E. Mason, the multiplicity is at the left, then the number is given followed by the number in factored form and finally the name of the discoverer.

m	N	N factored	Discoverer
4	2178540	$2^2*3^2*5*7^2*13*19$	Lehmer
3	120	2^3*3*5	Mersenne
4	32760	$2^3*3^2*5*7*13$	Descartes
3	672	2^5*3*7	Fermat
4	30240	2^5*3^3*5*7	Descartes
4	7045752288 96	$2^5*3^4*7^2*11^2*19^2*127$	Carmichael
4	45532800	$2^7*3^3*5^2*17*31$	Mersenne
5	14182439040	$2^7*3^4*5*7*11^2*17*19$	Descartes
5	31998395520	$2^7*3^5*5*7^2*13*17*19$	Descartes
4	1494212327 6641920	$2^7*3^6*5*17*23*137*547*1093$	Fermat
4	6088728021 160320	$2^7*3^{10}*5*17*23*107*3851$	Carmichael
4	1379454720	$2^8*3*5*7*19*37*73$	Lucas
4	1817428834 69056	$2^8*3^2*7^2*13*19^2*37*73*127$	Lehmer
3	459818240	$2^8*5*7*19*37*73$	Legendre
3	523776	$2^9*3*11*31$	Jumeau,Fermat
4	142990848	$2^9*3^2*7*11*13*31$	Descartes
4	23569920	$2^9*3^3*5*11*31$	Descartes
4	6222865068 11515392	$2^9*3^4*7*11^3*31^2*61*83*331$	Carmichael
4	43861478400	$2^{10}*3^3*5^2*23*31*89$	Mersenne
5	1366186010 1120	$2^{10}*3^4*5*7*11^2*19*23*89$	Fermat
5	3082386617 8560	$2^{10}*3^5*5*7^2*13*19*23*89$	Frenicle
5	5186668032 00	$2^{11}*3^3*5^2*7^2*13*19*31$	Lehmer
5	1161492388 3334693376 00	$2^{11}*3^5*5^2*7^3*13^2*31^2*61*83*331$	Carmichael
5	7969284610 56000	$2^{11}*3^5*5^3*7^3*13^3*17$	Carmichael

MULTIPLY PERFECT NUMBERS

m	N	N Factored	Discoverer
5	1702066051 9265614848 0	$2^{11}*3^6*5*7^2*13*19*23*137*547*1093$	Carmichael
5	6935705904 9509038080	$2^{11}*3^{10}*5*7^2*13*19*23*107*3851$	Carmichael
5	7403449948 87680	$2^{11}*3^5*5*7^2*13^2*19*31*61$	Carmichael
3	1476304896	$2^{13}*3*11*43*127$	Descartes
4	4030312366 08	$2^{13}*3^2*7*11*13*43*127$	Descartes
4	6643372032 0	$2^{13}*3^3*5*11*43*127$	Descartes
4	2015818585 7531904	$2^{14}*3^2*7^2*13*19^2*31*127*151$	Carmichael
5	1245087725 7965432832 00	$2^{14}*3^2*5^2*7^3*13*19*31^2*83*151*331$	Carmichael
3	5100118016 0	$2^{14}*5*7*19*31*151$	Fermat
6	1543455560 8577064960 0	$2^{15}*3^5*5^2*7^2*11*13*17*19*31*43*257$	Carmichael
6	6804896412 2653882368 0000	$2^{15}*3^5*5^4*7^3*11^2*13*17*19*43*71*257$	Mason
5	2125170626 15531520	$2^{15}*3^7*5*7*11*17*41*43*257$	Carmichael
5	8793447673 7668055040	$2^{17}*3^5*5*7^3*13*19^2*37*73*127$	Fermat
5	4010059765 9375239168 00	$2^{20}*3^2*5^2*7^3*13^3*17*31*127*337$	Carmichael
5	1802582780 3703646617 60	$2^{20}*3^3*5*7^2*13^2*19*31*61*127*337$	Fermat
5	1940351499 6471889920 00	$2^{20}*3^3*5^3*7^3*13^3*17*127*337$	Carmichael
5	2709907322 8001299660 800	$2^{21}*3^7*5^2*7*19*23*31*41*89*683$	Carmichael

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The following are the work of Alan L. Brown.

7 $2^{31}*3^{15}*5^5*7^8*11^3*13*17^3*19^3*29*31^2*37*41*43*61*97*181*193*257*331^2*1063*2617*5233*65537$

7 $2^{35}*3^{15}*5^6*7^3*11^3*13^2*17^2*19^2*37^2*41*43*53*61^2*67*73*97^2*109*127*193*257*307*317*3169*19531$

8 $2^{65}*3^{23}*5^9*7^{12}*11^3*13^3*17^2*19^2*23*29^2*31^2*37*41*53*61*67^2*71^2*73*83*89*103*127*131*149*211*307*331*463*521*683*709*1279*2141*2557*5113*6481*10429*20857*110563*599479*16148168401$

AMICABLE NUMBERS

220 (2^2*5*11)	284 (2^2*71)
1184 (2^5*37)	1210 ($2*5*11^2$)
2620 ($2^2*5*131$)	2924 ($2^2*17*43$)
5020 ($2^2*5*251$)	5564 ($2^2*13*107$)
79750 ($2*5^3*11*29$)	88730 ($2*5*19*467$)
503056 ($2^4*23*1367$)	514736 ($2^4*53*607$)
609928 ($2^3*11*29*239$)	686072 ($2^3*191*449$)
1154450 ($2*5^2*11*2099$)	1189150 ($2*5^2*17*1399$)
1511930 ($2*5*7*21599$)	1598470 ($2*5*19*47*179$)
3786904 ($2^3*11*23*1871$)	4300136 ($2^3*467*1151$)
5726072 ($2^3*11*31*2099$)	6369928 ($2^3*79*10079$)
7489112 ($2^3*17*53*1039$)	7674088 ($2^3*23*179*233$)
9071685 ($3^2*5*31*7*929$)	9498555 ($3^2*5*31*11*619$)
10572550 ($2*5^2*31*19*359$)	10854650 ($2*5^2*31*47*149$)
13813150 ($2*5^2*13*79*269$)	14310050 ($2*5^2*29*71*139$)
17257695 ($3*5*7*13*47*269$)	17578785 ($3*5*7*23*29*251$)
22227075 ($3^3*5^2*13*17*149$)	24644925 ($3^3*5^2*29*1259$)
28118032 ($2^4*47*139*269$)	28128368 ($2^4*59*83*359$)
33501825 ($3^2*5^2*7*89*239$)	36136575 ($3^2*5^2*19*79*107$)
37363095 ($3^2*7*11*5*41*263$)	45663849 ($3^2*7*11*131*503$)
46521405 ($3^3*5*7*19*2591$)	53011395 ($3^3*5*31*53*239$)
58580540 ($2^2*23*5*347*367$)	70507972 ($2^2*23*521*1471$)
78088504 ($2^3*13*31*53*457$)	88110536 ($2^3*167*65951$)
90437150 ($2*5^2*23*19*4139$)	94372450 ($2*5^2*23*137*599$)
131483835 ($3^2*5*7*71*5879$)	132692805 ($3^2*5*7*223*1889$)
169652512 ($2^5*71*89*839$)	173269088 ($2^5*191*28349$)
223878416 ($2^4*37*79*4787$)	227342704 ($2^4*41*346559$)
265192208 ($2^4*131*23*5501$)	275148208 ($2^4*131*251*523$)
393463072 ($2^5*43*269*1063$)	402877088 ($2^5*251*50159$)
558173344 ($2^5*41*467*911$)	571181792 ($2^5*233*76607$)
749380864 ($2^8*383*7643$)	750555392 ($2^8*1567*1871$)
1237888448 ($2^6*73*264959$)	1252205632 ($2^6*479*40847$)
2152573605 ($3^2*7*13*37*5*14207$)	2564027739 ($3^2*7*13*37*191*443$)

BERNOULLI NUMBERS

In the following tables the Bernoulli numbers B_{2n} are expressed in integral and decimal form, the period of the decimal being underlined.

n	B_{2n}
1	0.1$\overline{6}$
2	0.0$\overline{3}$
3	0.0$\underline{2380}$95
4	0.0$\overline{3}$
5	0.0$\overline{75}$
6	0.2$\underline{531135}$
7	1.1$\overline{6}$
8	7.0$\underline{9215686274509803}$
9	54.$\underline{9711779448621553884}$
10	529.$\underline{124}$
11	6192.$\underline{1231884057971014492753}$6
12	86580.$\underline{2531135}$
13	1425517.$\overline{16}$
14	27298231.$\underline{0678160919540229885057471264}$3
15	601580873.$\underline{900642368384303868174835916771}$4
16	15116315767.$\underline{0921568627450980}$3
17	429614643061.$\overline{16}$
18	13711655205088.$\underline{3327721590879485616}$
19	488332318973593.$\overline{16}$
20	19296579341940068.$\underline{14863266814}$
21	8416930475736826$\underline{15.000553709856035437430786267995570321151716}$5
22	4033807185405945541$\underline{3.076811594202898550724}$63
23	2115074863808199160$\underline{560.145390070921985815602836879432624113475177304}$96
24	1208662652229652593460$\underline{27.311937082525317819435466494290023701788407670760}$6
25	7500866746076964366855$\underline{720.07}$5
26	5038778101481068914137$\underline{89303.0522012578616}$3
27	3652877648481812333511$\underline{0430842.971177944862155388}$4
28	2849876930245088222626$\underline{914643291.067816091954022988505747126}$43
29	2386542749968362764464$\underline{59819192192.149717514124293785310734463276836158192090395480225988700}$56
30	2139994925722533366581$\underline{0744765191097.392674151161723874574218307692659887265915822235229956012610}$6

BERNOULLI NUMBERS

If we write the expansion of

$$z/(e^z-1) \text{ as } 1-z/2 +(B_2/2!)z^2 -(B_4/4!)z^4+.....$$

with the general term having a coefficient of $(-1)^{n-1}B_{2n}/(2n)!$, the quantities known as Bernoulli numbers would be $B_0=1$, $B_1= 1/2$, $B_{2n+1} = 0$ and B_{2n} as given in the following tables.

n	Denominator	Numerator
1	6	1
2	30	1
3	42	1
4	30	1
5	66	5
6	2730	691
7	6	7
8	510	3617
9	798	43867
10	330	174611
11	138	854513
12	2730	236364091
13	6	8553103
14	870	2374946102 9
15	14322	8615841276 005
16	510	7709321041 217
17	6	2577687858 367
18	1919190	2631527155 3053477373
19	6	2929993913 841559
20	13530	2610827184 9644912205 1
21	1806	1520097643 9180708026 91
22	690	2783326957 9301024235 023
23	282	5964511115 9391216327 7961
24	46410	5609403368 9978176862 49127547
25	66	4950572052 4107964821 2477525
26	1590	8011657181 3548995734 7924991853
27	798	2914996363 4884862421 4181238126 91
28	870	2479392929 3132267536 8541573966 3229
29	354	8448361334 8880041862 0467759940 36021
30	56786730	1215233140 4837555720 4030499407 9820246041 491

FACTORIZATION OF 2^n-1

n	2^n-1	FACTORS
1	1	1
2	3	3
3	7	7
4	15	3*5
5	31	31
6	63	3*3*7
7	127	127
8	255	3*5*17
9	511	7*73
10	1023	3*11*31
11	2047	23*89
12	4095	3*3*5*7*13
13	8191	8191
14	16383	3*43*127
15	32767	7*31*151
16	65535	3*5*17*257
17	131071	131071
18	262143	3*3*3*7*19*73
19	524287	524287
20	1048575	3*5*5*11*31*41
21	2097151	7*7*127*337
22	4194303	3*23*89*683
23	8388607	47*178481
24	16777215	3*3*5*7*13*17*241
25	33554431	31*601*1801
26	67108863	3*2731*8191
27	134217727	7*73*262657
28	268435455	3*5*29*43*113*127
29	536870911	233*1103*2089
30	1073741823	3*3*7*11*31*151*331
31	2147483647	2147483647
32	4294967295	3*5*17*257*65537
33	8589934591	7*23*89*599479
34	17179869183	3*43691*131071
35	34359738367	31*71*127*122921
36	68719476735	3*3*3*5*7*13*19*37*73*109
37	137438953471	223*616318177
38	274877906943	3*174763*524287
39	549755813887	7*79*8191*121369
40	1099511627775	3*5*5*11*17*31*41*61681
41	2199023255551	13367*164511353
42	4398046511103	3*3*7*7*43*127*337*5419
43	8796093022207	431*9719*2099863
44	17592186044415	3*5*23*89*397*683*2113
45	35184372088831	7*31*73*151*631*23311

FACTORIZATION OF 2^n-1

n	2^n-1	FACTORS
46	7036874417 7663	3*47*178481*2796203
47	1407374883 55327	2351*4513*13264529
48	2814749767 10655	3*3*5*7*13*17*97*241*257*673
49	5629499534 21311	127*4432676798593
50	1125899906 842623	3*11*31*251*601*1801*4051
51	2251799813 685247	7*103*2143*11119*131071
52	4503599627 370495	3*5*53*157*1613*2731*8191
53	9007199254 740991	6361*69431*20394401
54	1801439850 9481983	3*3*3*3*7*19*73*87211*262657
55	3602879701 8963967	23*31*89*881*3191*201961
56	7205759403 7927935	3*5*17*29*43*113*127*15790321
57	1441151880 75855871	7*32377*524287*1212847
58	2882303761 51711743	3*59*233*1103*2089*3033169
59	5764607523 03423487	179951*3203431780337
60	1152921504 606846975	3*3*5*5*7*11*13*31*41*61*151*331*1321
61	2305843009 213693951	2305843009213693951
62	4611686018 427387903	3*715827883*2147483647
63	9223372036 854775807	7*7*73*127*337*92737*649657
64	1844674407 3709551615	3*5*17*257*641*65537*6700417
65	3689348814 7419103231	31*8191*145295143558111
66	7378697629 4838206463	3*3*7*23*67*89*683*20857*599479
67	1475739525 8967641292 7	193707721*761838257287
68	2951479051 7935282585 5	3*5*137*953*26317*43691*131071
69	5902958103 5870565171 1	7*47*178481*10052678938039
70	1180591620 7174113034 23	3*11*31*43*71*127*281*86171*122921

n	2^{n-1} and FACTORS
71	2361183241 4348226068 47 228479*48544121*212885833
72	4722366482 8696452136 95 3*3*3*5*7*13*17*19*37*73*109*241*433*38737
73	9444732965 7392904273 91 439*2298041*9361973132609
74	1888946593 1478580854 783 3*223*1777*25781083*616318177
75	3777893186 2957161709 567 7*31*151*601*1801*100801*10567201
76	7555786372 5914323419 135 3*5*229*457*174763*524287*525313
77	1511157274 5182864683 8271 23*89*127*581283643249112959
78	3022314549 0365729367 6543 3*3*7*79*2731*8191*121369*22366891
79	6044629098 0731458735 3087 2687*202029703*1113491139767
80	1208925819 6146291747 06175 3*5*5*11*17*31*41*257*61681*4278255361

FACTORIZATION OF 2^{n-1}

n	2^{n-1} and FACTORS
81	2417851639 2292583494 12351
	7*73*2593*71119*262657*97685839
82	4835703278 4585166988 24703
	3*83*13367*164511353*8831418697
83	9671406556 9170333976 49407
	167*579126141132756490877 21
84	1934281311 3834066795 298815
	3*3*5*7*7*13*29*43*113*127*337*1429*5419*14449
85	3868562622 7668133590 597631
	31*131071*9520972806333758431
86	7737125245 5336267181 195263
	3*431*9719*2099863*2932031007403
87	1547425049 1067253436 2390527
	7*233*1103*2089*4177*9857737155463
88	3094850098 2134506872 4781055
	3*5*17*23*89*353*397*683*2113*2931542417
89	6189700196 4269013744 9562111
	618970019642690137449562111
90	1237940039 2853802748 99124223
	3*3*3*7*11*19*31*73*151*331*631*23311*18837001
91	2475880078 5707605497 98248447
	127*911*8191*112901153*23140471537
92	4951760157 1415210995 96496895
	3*5*47*277*1013*1657*30269*178481*2796203
93	9903520314 2830421991 92993791
	7*2147483647*658812288653553079
94	1980704062 8566084398 385987583
	3*283*2351*4513*13264529*165768537521
95	3961408125 7132168796 771975167
	31*191*524287*420778751*30327152671
96	7922816251 4264337593 543950335
	3*3*5*7*13*17*97*193*241*257*673*65537*22253377
97	1584563250 2852867518 7087900671
	11447*13842607235828485645766393
98	3169126500 5705735037 4175801343
	3*43*127*4363953127297*4432676798593
99	6338253001 1411470074 8351602687
	7*23*73*89*199*153649*599479*33057806959
100	1267650600 2282294014 9670320537 5
	3*5*5*5*11*31*41*101*251*601*1801*4051*8101*268501

FACTORIZATION OF $2^n + 1$

n	2^n+1	FACTORS
1	3	3
2	5	5
3	9	3*3
4	17	17
5	33	3*11
6	65	5*13
7	129	3*43
8	257	257
9	513	3*3*3*19
10	1025	5*5*41
11	2049	3*683
12	4097	17*241
13	8193	3*2731
14	16385	5*29*113
15	32769	3*3*11*331
16	65537	65537
17	131073	3*43691
18	262145	5*13*37*109
19	524289	3*174763
20	1048577	17*61681
21	2097153	3*3*43*5419
22	4194305	5*397*2113
23	8388609	3*2796203
24	16777217	97*257*673
25	33554433	3*11*251*4051
26	67108865	5*53*157*1613
27	134217729	3*3*3*3*19*87211
28	268435457	17*15790321
29	536870913	3*59*3033169
30	1073741825	5*5*13*41*61*1321
31	2147483649	3*715827883
32	4294967297	641*6700417
33	8589934593	3*3*67*683*20857
34	17179869185	5*137*953*26317
35	34359738369	3*11*43*281*86171
36	68719476737	17*241*433*38737
37	137438953473	3*1777*25781083
38	274877906945	5*229*457*525313
39	549755813889	3*3*2731*22366891
40	1099511627777	257*4278255361
41	2199023255553	3*83*8831418697
42	4398046511105	5*13*29*113*1429*14449
43	8796093022209	3*2932031007403
44	17592186044417	17*353*2931542417
45	35184372088833	3*3*3*11*19*331*18837001

FACTORIZATION OF 2^n+1

n	2^n+1	FACTORS
46	7036874417 7665	5*277*1013*1657*30269
47	1407374883 55329	3*283*165768537521
48	2814749767 10657	193*65537*22253377
49	5629499534 21313	3*43*4363953127297
50	1125899906 842625	5*5*5*41*101*8101*268501
51	2251799813 685249	3*3*307*2857*6529*43691
52	4503599627 370497	17*858001*308671441
53	9007199254 740993	3*107*28059810762433
54	1801439850 9481985	5*13*37*109*246241*279073
55	3602879701 8963969	3*11*11*683*2971*48912491
56	7205759403 7927937	257*3153*54410972897
57	1441151880 75855873	3*3*571*174763*160465489
58	2882303761 51711745	5*107367629*536903681
59	5764607523 03423489	3*2833*37171*1824726041
60	1152921504 606846977	17*241*61681*4562284561
61	2305843009 213693953	3*768614336404564651
62	4611686018 427387905	5*5581*8681*49477*384773
63	9223372036 854775809	3*3*3*19*43*5419*77158673929
64	1844674407 3709551617	274177*67280421310721
65	3689348814 7419103233	3*11*131*2731*409891*7623851
66	7378697629 4838206465	5*13*397*2113*312709*4327489
67	1475739525 8967641292 9	3*7327657*6713103182899
68	2951479051 7935282585 7	17*17*354689*2879347902817
69	5902958103 5870565171 3	3*3*139*2796203*168749965921
70	1180591620 7174113034 25	5*5*29*41*113*7145361*47392381
71	2361183241 4348226068 49	
	3*56409643*13952598148481	
72	4722366482 8696452136 97	
	97*257*577*673*487824887233	
73	9444732965 7392904273 93	
	3*1753*1795918038741070627	
74	1888946593 1478580854 785	
	5*149*593*18448113*231769777	
75	3777893186 2957161709 569	
	3*3*11*251*331*4051*1133836730401	
76	7555786372 5914323419 137	
	17*1217*148961*24517014940753	
77	1511157274 5182864683 8273	
	3*43*617*683*78233*3552364099	
78	3022314549 0365729367 6545	
	5*13*13*53*157*313*1249*1613*3121*21841	
79	6044629098 0731458735 3089	
	3*2014876366024381957843 63	
80	1208925819 6146291747 06177	
	65537*414721*44479210368001	

FACTORIZATION OF 2^n+1

n	2^n+1 and Factors
81	2417851639 2292583494 12353
	3*3*3*3*3*19*163*87211*135433*272010961
82	4835703278 4585166988 24705
	5*10169*181549*12112549*43249589
83	9671406556 9170333976 49409
	3*499*1163*2657*155377*13455809771
84	1934281311 3834066795 298817
	17*241*3361*15790321*88959882481
85	3868562622 7668133590 597633
	3*11*43691*26831423036065352611
86	7737125245 5336267181 195265
	5*173*101653*500177*1759217765581
87	1547425049 1067253436 2390529
	3*3*59*3033169*96076791871613611
88	3094850098 2134506872 4781057
	257*229153*119782433*43872038849
89	6189700196 4269013744 9562113
	3*179*62020897*18584774046020617
90	1237940039 2853802748 99124225
	5*5*13*37*41*61*109*181*1321*54001*29247661
91	2475880078 5707605497 98248449
	3*43*2731*224771*1210483*25829691707
92	4951760157 1415210995 96496897
	17*291280009243618888211558641
93	9903520314 2830421991 92993793
	3*3*715827883*529510939*2903110321
94	1980704062 8566084398 385987585
	5*3761*784047069*140737471578113
95	3961408125 7132168796 771975169
	3*11*2281*174763*3011347479614249131
96	7922816251 4264337593 543950337
	671*6700417*18446744069414584321
97	1584563250 2852867518 7087900673
	3*971*1553*31817*1100876018364883721
98	3169126500 5705735037 4175801345
	5*29*113*197*19707683773*4981857697937
99	6338253001 1411470074 8351602689
	3*3*3*19*67*683*5347*20857*242099935645987
100	1267650600 2282294014 9670320537 7
	17*401*61681*340801*2787601*3173389601

FACTORS OF MERSENNE NUMBERS

Mersenne numbers are of the form $2^p - 1$ where p is a prime.

p	Factors
2	3
3	7
5	31
7	127
11	23*89
13	8191
17	131071
19	524287
23	47*178481
29	233*1103*2089
31	2147483647
37	223*616318177
41	13367*164511353
43	431*9719*2099863
47	2351*4513*13264529
53	6361*69431*20394401
59	179951*3203431780337
61	2305843009213693951
67	193707721*761838257287
71	228479*48544121*212885833
73	439*2298041*9361973132609
79	2687*202029703*1113491139767
83	167*57912614113275649087721
89	618970019642690137449562111
97	11447*1384260723582848564576639 3
101	7432339208719*341117531003194129
103	2550183799*3976656429941438590393
107	162259276829213363391578010288127
109	745988807* 870035986098720987332873
113	3391*23279*65993*1868569*1066818132868207
127	170141183460469231731687303715884105727
131	263* 1035079443105516238671861923746823 4569
137	
139	
149	
151	18121*55871*165799*2332951*(prime)
157	852133201 *
163	150287*704161*110211473*27669118297*36230454570129675721
167	2349023*
173	730753*1505447*

FACTORS OF MERSENNE NUMBERS

p	Factors
179	359*1433*148945910936003986645694019709543372166495199912 1
181	43441*1164193*7648337*792387109728295625344647665764672671
191	383*7068569257*
193	13821503*
197	7487*
199	
211	15193*
223	18287*196687*1466449*2916841*
227	
229	1504073*20492753*
233	1399*135607*622577*
239	479*1913*5737*176383*134000609*
241	22000409*
251	503*54217*
257	
263	23671*
269	13822297*
271	15242475217*
277	1121297*
281	80929*
283	9623*
293	
307	14608903*85798519*
311	5344847*
313	10960009*
317	9511*
331	
337	18199*2806537*
347	
349	
353	931921*
359	719*855857*778165529*
367	12479*51791041*
373	25569151*
379	
383	1440847*
389	56478911*
397	2383*6353*50023*53993*202471*5877983*
401	
409	
419	839*
421	
431	863*3449*36238481*76859369*558062249*
433	
439	104110607*

FERMAT NUMBERS

The nth Fermat number is $2^{2^n}+1$. Such numbers are known to be prime for n= 0,1,2,3,4. Factors of Fermat numbers, date of discovery and discoverer are shown in the following table.

n	Factor	Date	Discoverer
5	641	1732	Euler
5	6700417	1732	Euler
6	274177	1880	Landry
6	67280421310721	1880	Landry,Le Lasseur
7	59649589127497217* 5704689200685129054721	1970	Morrison,Brillhart
9	2424833	1903	Western
10	45592577	1953	Selfridge(SWAC)
11	319489	1899	Cunningham
11	974849	1899	Cunningham
12	114689	1877	Pervouchine, Lucas
12	26017793	1903	Western
12	63766529	1903	Western
13	Composite	1960	Paxson
15	1214251009	1925	Kraitchik
16	825753601	1953	Selfridge(SWAC)
18	13631489	1903	Western
19	70525124609	1963	Riesel
23	167772161	1878	Pervouchine
36	2748779069441	1886	Seelhoff
38	6597069766657	1903	Cullen,Cunningham,Western
39	46179488366593	1956	Robinson(SWAC)
55	4179340454199820289	1956	Robinson(SWAC)
58	$95*2^{61}+1$	1957	Robinson(SWAC)
63	$9*2^{67}+1$	1956	Robinson(SWAC)
73	$5*2^{75}+1$	1906	Morehead
77	$425*2^{79}+1$	1957	Robinson,Selfridge(SWAC)
81	$271*2^{84}+1$	1957	Robinson,Selfridge(SWAC)
117	$7*2^{120}+1$	1956	Robinson(SWAC)
125	$5*2^{127}+1$	1956	Robinson(SWAC)
144	$17*2^{147}+1$	1956	Robinson(SWAC)
150	$1575*2^{157}+1$	1956	Robinson(SWAC)
207	$3*2^{209}+1$	1956	Robinson(SWAC)
226	$15*2^{229}+1$	1956	Robinson(SWAC)
228	$29*2^{231}+1$	1956	Robinson(SWAC)
250	$403*2^{252}+1$	1957	Robinson,Selfridge(SWAC)

FERMAT NUMBERS

n	Factor	Date	Discoverer
267	$177*2^{271}+1$	1957	Robinson,Selfridge(SWAC)
268	$21*2^{276}+1$	1956	Robinson(SWAC)
284	$7*2^{290}+1$	1956	Robinson(SWAC)
316	$7*2^{320}+1$	1956	Robinson(SWAC)
452	$27*2^{455}+1$	1956	Robinson(SWAC)
1945	$5*2^{1947}+1$	1957	Robinson(SWAC)

PRIME FACTORS OF CULLEN NUMBERS $n*2^n\pm1$

Edgar Karst

Let $C_n = n*2^n+1$ be the Cunningham numbers and $W_n = n*2^n-1$ the Woodall numbers. Then C_n and W_n are called Cullen numbers.

An attempt has been made, for all greater than 3-digit factors, to find their discoverers. In Tables I and II letters in parentheses mean: (Be) due to N.G.W.H. Beeger[1], (CW) due to Cunningham and Woodall [2], (Is) due to K.R. Isemonger, (Jo) due to Ingemar Jonsson [3], (Ka) due to Edgar Karst, (Kr) due to Maurice Kraitchik [4], (La) due to Le Lasseur de Sanzey[4], (Le) due to D.H. Lehmer, (Li) due to Lienard of Lyons [1], (Ma) due to J.S. Madachy, (Po) due to Paul Poulet [5], (Ri) due to Hans Riesel [6], (Ro) due to R.M.Robinson [8]. (?) means character unknown.

The results of Tables I and II were checked against those of Cunningham and Woodall [2]; the latter are free of errors except for three minor omissions: C_{76} has not only 47, but 47^2 as a factor, C_{106} has not only 71, but 71^2 as a factor, and C_{185} has not only 31, but 31^2 as a factor. Only two C_n were found prime so far , C_1 and C_{141} [8]. There are several W_n which are prime: W_1,W_2, W_3,W_6,W_{30},W_{75}, W_{81}, W_{115} [7], and $W_{362} = 181*2^{163}-1$[3].

[1] N.G.W.H.Beeger, Cullen Numbers, Math. Tables and other Aids to Comp., 8 (1954), 188.

[2] A.J.C. Cunningham and H.J. Woodall, Factorisation of Q = $(2^q\pm q)$ and $(q*2^q\pm 1)$, Messenger of Mathematics, 47 (1917), 1-38.

[3] Ingemar Jonsson, On Certain Primes of Mersenne-type, BIT, 12(1972), 117-118.

[4] Maurice Kraitchik, On the Factorization of $2^n \pm 1$, Scripta Mathematica, 13 (1952), 39-52.

[5] D.H. Lehmer, On the Factors of $2^n \pm 1$, Bull. Amer. Math. Soc. 53(1947) 164-167

[6] Hans Riesel, Lucasian Criteria for the Primality of N= $h*2^n-1$, Math.Comp. 23(1969), 869-875

[7] Hans Riesel, En Bok om Primtal, Lund, 1968

[8] R.M.Robinson, A Report on Primes of the Form $k*2^n+1$ and on Factors of Fermat Numbers, Proc. Amer. Math. Soc. 9 (1958), 673-681

TABLE I. PRIME FACTORS OF $C_n = n*2^n + 1$

n	PRIME FACTORS
1	3
2	3*3
3	5*5
4	5*13
5	7*23
6	5*7*11
7	3*13*23
8	3*683
9	11*419
10	7*7*11*19
11	13*1733(CW)
12	13*19*199
13	3*3*11833(CW)
14	3*157*487
15	17*29*997
16	17*61681(CW)
17	5*5*19*4691(CW)
18	11*19*107*211
19	3*17*37*5279(CW)
20	3*3*3*103*7541(CW)
21	23*1914791(CW)
22	13*23*43*7177(CW)
23	5*151*421*607
24	5*11*1399(CW)*5233(CW)
25	3*17*2459(CW)*6689(CW)
26	3*5*7*7*2373919(CW)
27	7*29*53*336823(CW)
28	29*29*8937209(CW)
29	31*83*6051013(CW)
30	17*17*31*59*149*409
31	3*3*7*61*1483(CW)*11681(CW)
32	3*1777(CW)*25781083(CW)
33	47*6031230671(Be)
34	19*23*67*1061(CW)*18803(CW)
35	37*32502455213(Be)
36	37*37*1933(CW)*934861(CW)
37	3*5*339016085231(Be)
38	3*3*20879(Be)*55586743(Be)
39	41*3433(Be)*152326961(Be)
40	41*131611(Be)*8150491(Be)
41	13*43*1291(Be)*124932557(Be)
42	23*43*83*2250270487(Be)
43	3*5*163*2633(Be)*58752797(Be)
44	3*5*28909(Ka)*1785040843(Ka)
45	11*47*2437(Be)*1256655529(Be)

PRIME FACTORS OF $C_n = n*2^n + 1$

n	PRIME FACTORS
46	5*31*47*139297(Li)*3189821(Li)
47	7*11*43*3593(Be)*556021079(Be)
48	7*379*997*5107973329(Be)
49	3*3*3*3*340549971822769(Ma)
50	3*163*211*563*857*1130809(CW)
51	53*101*21453725107033(Ma)
52	7*11*17*53*1433(Ka)*2355599273(Ka)
53	5591(CW)*16747(Ka)*5098461301(Ma)
54	29*107*7187(Ka)*110503(Ma)*394739(Ma)
55	3*109*2185637(Le)*2772596459(Le)
56	3*3*1021(CW)*439136496476653(Ma)
57	5*13*59*10740337(Le)*199434979(Le)
58	31*59*101*7002713(Le)*12923089(Le)
59	37*43*61*350446511482643(Ma)
60	61*2267(CW)*1529093(Ma)*327141571(Ma)
61	3*19*37*41*21557(Ka)*110359(Ma)*683759(Ma)
62	3*953081777l4166016683(?)
63	5*1162144876643701751 81(?)
64	5*5*29*41*113*7416361(CW)*47392381(CW)
65	67*149*2357(CW)*367019(Ma)*277685929(Ma)
66	5*5*5*13*67*107*131*8353(CW)*382030403(Be)
67	3*3*1098606091500924407353(?)
68	3*7*9557170262950472456 29(?)
69	7*71*193*135979(Le)*3122721481331(Le)
70	37*47*71*139*4815318361753391(Le)
71	11*11*73*173*5113(Ka)*21456452254477(Ma)
72	41*73*6011(CW)*40163(Ka)*470557385537(Ma)
73	3*7*89*277*1331752354101535409(Le)
74	3*3*3*51771128849237591972371(?)
75	149*367*51815370219662182547(?)
76	47*47*25995462395516018921 93(?)
77	5*17*79*17328236803858236495 23(?)
78	41*79*72781887874298452938 47(?)
79	3*59*157*3533(Ka)*486385021960327769(?)
80	3*67*4811645053192553929178 81(?)
81	83*13633(Ka)*173079304184451376667(?)
82	43*83*163*6816153221823204405 07(?)
83	5*23*15373(Ka)*4540579300377645572 87(?)
84	5*2971(CW)*22637(Ka)*4831782703823228467(?)
85	3*3*15607(Ka)*24763(Ka)*945373359298147709(?)
86	3*5*3989(Ka)*111204607857590356439923(?)
87	19*89*173*22853(Ka)*20137054479630476 03(?)
88	89*2137(Ka)*1431949696586013473039 53(?)
89	7*786976167831420317614443256 7(?)
90	7*47*179*189187827572437596136797 1(?)

PRIME FACTORS OF $C_n = n*2^n + 1$

n	PRIME FACTORS
91	3*181*9157(Ka)*45312492701985320136019(?)
92	3*3*506179927174466601292086349 37(?)
93	71*79*887*185124323914984217570479(?)
94	7*265980259869315990492611833271(?)
95	29*97*133783779574388767710392 3797(?)
96	97*784113773337049114327857652 81(?)
97	3*5*13*788218642449604179135770 58283(?)
98	3*929*111436812721893147960779 43499(?)
99	13*101*197*242590513109039845102612333(?)
100	101*125509960418636574405614178 7501(?)
101	103*
102	53*103*
103	3*3*3*5*5*11*1951(Ka)*2333(Ka)*
104	3*5*
105	107*
106	5*17*17*71*71*107*211*4157(Ka)*
107	23*109*9967(Ka)*
108	109*
109	3*73*
110	3*3*7*
111	7*7*7*113*647*659*
112	53*107*113*
113	241*
114	59*227*
115	3*7*229*1361(Ka)*
116	3*11*19*191*2377(Ka)*
117	5*5*881*8669(Ka)*
118	61*79*
119	11*19*3463(Ka)*
120	11*983*
121	3*3*
122	3*
123	5*229*821*
124	5*
125	23*127*3023(Ka)*
126	5*127*251*1627(Ka)*
127	3*433*
128	3*3*3*3*11*19*331*811*15121*87211*18837001(La)*385838642647891(La)
129	131*
130	67*131*
131	7*
132	7*
133	3*29*89*
134	3*11*5801(Ka)*
135	23*137*269*

PRIME FACTORS OF $C_n = n*2^n + 1$

n	PRIME FACTORS
136	7*137*
137	5*29*139*
138	71*139 *
139	3*3*19*277*1979(Ka)*
140	3*13*
141	Prime (Ro)
142	73*283*523*2621(Ka)*
143	5*9623(Ka)*
144	5*53*1373(Ka)*
145	3*97*277*499*2393(Ka)*
146	3*3*5*13 *
147	31*149*293*
148	149*
149	19*151*
150	151*
151	3*17*17*47*1259(Ka)*
152	3*7*17*67*109*
153	7*19*1307(Ka)*
154	47*79*103*307*701*
155	11*17*157*
156	47*157*
157	3*3*3*5*7*7*11*
158	3*
159	317*3517(Ka)*
160	13*6397(CW)*
161	17*163*
162	11*83*113*163*
163	3*5*13*139*211*
164	3*3*5*5*73*5821(Ka)*
165	167*
166	5*5*17*167*269*331*1229(Ka)*
167	13*59*101*227*2741(Ka)*
168	13*41*263*1193(Ka)*
169	3*113*2371(Ka)*
170	3*97*163*
171	173*
172	173*
173	7*7*7*67*113*
174	7*43*89*347*379*
175	3*3*349*
176	3*
177	5*29*37*179*229*
178	7*13*23*179*
179	181*
180	181*

n	PRIME FACTORS
181	3*11*67*
182	3*3*3*79*353*
183	5*
184	5*19*31*
185	29*31*31*
186	5*
187	3*373*
188	3*17*53*61*79 *
189	191*
190	97*127*191*379*
191	193*
192	193*
193	3*3*
194	3*7*239*1579(CW)*
195	7*197*389*
196	197*
197	5*13*41*97*199*
198	101*199*
199	3*7*19*397*
200	3*3*89*
201	31*
202	103*
203	5*5*5*73*89*331*
204	5*
205	3*97*137*
206	3*5*
207	43*709*
208	67*
209	211*
210	107*211*419*701*
211	3*3*3*3*421*521*
212	3*19*
213	11*13*17*31*
214	109*233*
215	7*
216	7*937*7873(CW)*228443(Le)* 18910170841421(Le)*
217	3*5*5*5*5*
218	3*3*277*347*733*839*
219	587*
220	7*199*
221	223*
222	13*113*223*443*
223	3*5*
224	3*5*131*
225	227*761*

PRIME FACTORS OF $C_n = n*2^n + 1$

n	PRIME FACTORS
226	5*11*151*191*227*
227	47*229*
228	73*229*
229	3*3*11*11*
230	3*11*
231	131*233*461*
232	61*233*
233	17389(Ka)*
234	467*
235	3*
236	3*3*3*7*29*
237	5*7*239 *
238	11*239*367 *
239	149*241*431*
240	137*241*
241	3*7*109*251*677*
242	3*17*523*
243	5*59*
244	5*11*4517(Ka)*
245	Composite (Ro)
246	5*491*
247	3*3*
248	3*5851(Ka)*
249	241*251*4013(Ka)*
250	127*167*251*499*
251	Composite (Ro)
252	Composite (Ri)
253	3*13*
254	3*3*53*113*
255	13*41*61*257*509*
256	97*257*673*229153(Ri)* 119782433(Ri)*43872038849(Ri)*
257	5*7*53*
258	7*7*23*97*131*167*337* 2297(Ka)*
259	3*43*71*83*
260	3*23*
261	229*263*
262	7*263*523*
263	5*
264	5*5*5*5021(Ka)*
265	3*3*3*11*
266	3*5*5*349*461*
267	11*37*269*
268	157*269*
269	101*271*733*
270	137*271*

n	PRIME FACTORS
271	3*29*541*
272	3*3*11*53*
273	19*37*
274	23*139*547*6569(Ka)*
275	23*277*
276	277*
277	3*5*83*359*461*617*
278	3*7*89*
279	7*281*557*
280	281*
281	283*
282	283*563*
283	3*3*5*7*
284	3*5*
285	Composite(Ro)
286	5*191*571*
287	17*23*59*61*67*653*8527(Ka)*
288	17*379*
289	3*41*193*937*
290	3*3*3*3*
291	11*17*293*
292	293*
293	Composite(Ro)
294	79*149*587*
295	3*23*541*
296	3*13*
297	5*17*61*
298	151*199*691*
299	7*
300	7*157*

TABLE II. PRIME FACTORS OF $W_n = n*2^n - 1$

n	PRIME FACTORS
1	1
2	7
3	23
4	3*3*7
5	3*53
6	383
7	5*179
8	23*89
9	17*271
10	3*3413(CW)
11	3*3*2503(CW)
12	23*2137(CW)
13	5*19*19*59
14	5*5*5*5*367
15	7*7*7*1433(CW)
16	3*5*5*11*31*41
17	3*47*15803(CW)
18	79*59729(CW)
19	13*29*26423(CW)
20	1879(CW)*11161(CW)
21	13*41*53*1559(CW)
22	3*3*3*271*12611(CW)
23	3*7*9187523(CW)
24	47*67*127867(CW)
25	7*119837257(CW)
26	229*661*11527(CW)
27	5*307*2360833(CW)
28	3*19*2999(CW)*43969(CW)
29	9*733*1009(CW)*2339(CW)
30	32212254719(Ri)
31	263*983*257503(CW)
32	223*616318177(CW)
33	5*217561(Ma)*260587(Ma)
34	3*5*29*10501(Ka)*127873(Ka)
35	3*587*682902239(Ka)
36	5*7*71*22153(CW)*44939(CW)
37	73*69660839431(Ma)
38	17*518239(Ma)*1185617(Ma)
39	1217(Ka)*17617482943(Ma)
40	3*3*79*1747(CW)*35407667(CW)
41	3*19*4517(Ka)*350177899(Ka)
42	6709(Ka)*161123(Ma)*170881(Ma)
43	29*191*773*883*100043(CW)
44	7*53*2086404813893(Ma)
45	71*89*412397(Ma)*607573(Ma)

PRIME FACTORS OF $W_n = n*2^n - 1$

n	PRIME FACTORS
46	3*7*7*18251(Ka)*1206517519(Ma)
47	3*3*3*3*5*3555949(Ma)*4593007(Ma)
48	11*1439(CW)*8963(CW)*95230081(CW)
49	97*271*281*3734380121(Ma)
50	47*1197765858343217(Le)
51	114841790497947647(Composite, Ri)
52	3*103*18954679(Ma)*39984181(Ma)
53	3*5*5*6365087473350301(?)
54	5*194555503902405427(?)
55	37*1609(CW)*4983497(Ma)*6679139(Ma)
56	5*941*857646177709663(Ma)
57	7*113*197*52715933184389(Ma)
58	3*3*1857484646311031239(?)
59	3*23*1151(Ka)*589481(Ma)*726486469(Ma)
60	9377(CW)*22259(Ka)*331422069413(Ma)
61	11*12786947596548666461(?)
62	13*23*37*25845117340910969(?)
63	479*71843(Ka)*16885359197099(?)
64	3*11*31*43*127*281*86171(CW)*71122921(CW)
65	3*3*7*11*59*58651325105345017(?)
66	41*1097(Ka)*108276239754970799(?)
67	5*5*7*564997418486189695 21(?)
68	13*101*863*17712224004889153(?)
69	137*1583(Ka)*187809393209560937(?)
70	3*27547137816739597079893(?)
71	3*558813367139574683620 69(?)
72	3400103867666144553861 11(Composite, Ri)
73	5*11*11*773*1474272195907258831(?)
74	5*279564095785882996650803(?)
75	2833419889721787128217599(Prime, Ri)
76	3*3*3*5*59*151*9043(Ka)*1983649(Ma)*266166367(Ma)
77	3*387863700459693526884898 1(?)
78	7*59*137*4166425740528670208 51(?)
79	11*53*28319(Ka)*2892346238567010263(?)
80	131*7382753096883231601259 09(?)
81	1958459827775699263024005 11(Prime, Ri)
82	3*13*571*178062629140777928 64683(?)
83	3*3*17*421*1246218533873773 5736651(?)
84	17*37*167*379*2687(Ka)*151888512472119 37(?)
85	13*252944479180907027323138363(?)
86	7*7*135794443084875897501689647(?)
87	5*17*158383505026217770465035011(?)
88	3*7*59*219811790672141776011143 93(?)
89	3*13*23003(Ka)*614059612605707195 75051(?)
90	13*857035411812955574930162924 3(?)

PRIME FACTORS OF $W_n = n*2^n - 1$

n	PRIME FACTORS
91	61*103*1087(Ka)*32989398262354413229027(?)
92	41*111112666940736571015336027 91(?)
93	5*17*17*63738919669780133185117 5379(?)
94	3*3*5*4137470709078248740996184 0731(?)
95	3*853*2833(Ka)*19841(Ka)*261633153498973784 17(?)
96	5*191* 796429696478468733924630286 1(?)
97	193* 796386711283278833841840744 31(?)
98	17*3089(Ka)*591423832300413618278697247(?)
99	7*896410067304247933915525838087 3(?)
100	3*11*13*67*199*769*10243(Ka)*25373(Ka)*2113879(Ka)*52457663(Ka)
101	3*3*3*83*
102	11*19*
103	Composite (Ri)
104	521*3733(Ka)*
105	491*
106	3*97*
107	3*5*7*11*137*
108	157*
109	7*
110	Composite(Ri)
111	1097(Ka)*2843(Ka)*
112	3*3*223*
113	3*5*
114	5*5*4391(Ka)*
115	Prime (Ri)
116	5*5*919*7331(Ka)*
117	37*233*
118	3*4759(Ka)*
119	3*3*13*23*139*4789(Ka)*
120	7*17*239*1453(Ka)*
121	241*
122	101*
123	Composite(Ri)
124	3*83*
125	3*31*157*197*307*
126	11*1151(Ka)*
127	5*
128	7*31*73*151*271*631*23311(Po)*262657(Po)*348031(Po)*49971617830801(Po)
129	257*2341(Ka)*
130	3*3*3*3*3*3*7*
131	3*127*
132	31*263*
133	5*1811(Ka)*
134	5*193*
135	13*3967(Ka)*

PRIME FACTORS OF $W_n = n*2^n - 1$

n	PRIME FACTORS
136	3*5*271*
137	3*3*43*1867(Ka)*
138	37*
139	163*6287(Ka)*
140	6841(Ka)*
141	7*19*79*281*1069(Ka)*
142	3*
143	3*127*
144	13*9907(Ka)*
145	17*263*
146	359*
147	5*71*
148	3*3*
149	3*7*83*3767(Ka)*
150	9533(Ka)*
151	7*101*
152	Composite(Ri)
153	5*5*
154	3*5*
155	3*3*3*41*
156	5*89*311*1913(Ka)*
157	47*313*
158	11*7237(Ka)*
159	Composite(Jo)
160	3*107*
161	3*4831(Ka)*
162	7*7*431*4289(Ka)*
163	109*
164	Composite(Jo)
165	1789(Ka)*
166	3*3*47*8117(Ka)*
167	3*5*5*23*4969(Ka)*
168	Composite(Ri)
169	337*
170	7*61*131*419*
171	11*31*577*
172	3*7*
173	3*3*5*1063(Ka)*6089(Ka)*
174	5*11*17*197*
175	11*11*13*1523(Ka)*
176	5*1231(Ka)*
177	13*353*
178	3*101*
179	3*
180	359*

n	PRIME FACTORS
181	19*401*
182	Composite(Ri)
183	7*11*19*397*
184	3*3*3*109*367*557*
185	3*
186	23*
187	5*
188	19*
189	11*19*149*
190	3*71*79*
191	3*3*7*
192	383*
193	5*7*7*23*
194	5*89*
195	47*
196	3*5*71*131*439* 1590071713005340968798502 39(?)* 20213107520723475650289117 17(?)
197	3*
198	113*
199	43*
200	79*
201	401*
202	3*3*
203	3*
204	7*251*
205	19*409*
206	199*
207	5*
208	3*139*
209	3*3*3*3*3*79*197*
210	11*73*313*
211	Composite (Schroeppel)
212	7*11*
213	5*
214	3*5*5*7*
215	3*877*
216	5*5*47*431*5011(Ka)* 55949447395404791(?)*1602128970558-97512092459427661991265632923(?)
217	11*433*
218	13*59*97*
219	17*31*
220	3*3*17*17*439*

PRIME FACTORS OF $W_n = n*2^n - 1$

n	PRIME FACTORS
221	3*
222	49943(Ka)*
223	17*73*149*
224	13*
225	7*23*23*449*
226	3*43*
227	3*3*5*
228	6221(Ka)*7937(Ka)*
229	17*457*523*
230	24841(Ka)*
231	23*
232	3*19*463*
233	3*5*7*7*271*
234	5*17*
235	7*157*
236	5*11*
237	179*
238	3*3*3*13*
239	3*
240	479*
241	13*
242	199*
243	619*
244	3*163*487*
245	3*3*13*13*
246	7*13*
247	5*43*859*2797(Ka)*3529(Ka)* 7559(Ka)*
248	29*197*
249	Composite (Schroeppel)
250	3*283*
251	3*61*6007(Ka)*8761(Ka)*
252	137*503*
253	5*5*
254	5*7*29*3673(Ka)*
255	83*
256	3*3*5*7*13*17*23*67*89 241*353*397*683*2113(Kr)* 7393(Kr)*20857(Kr)* 312709(Kr)*599479(Kr)* 4327489(Kr)*1761345169(Is) *2931542417(Is)* 98618273953(Is)
257	3*3347(Ka)*
258	19*4289(Ka)*
259	97*173*1583(Ka)*9923(Ka)*
260	137*439*
261	23*521*739*
262	3*37*1291(Ka)*
263	3*3*3*
264	41*3001(Ka)*
265	23*137*
266	103*433*
267	5*5*7*4561(Ka)*
268	3*11*29*179*
269	3*47*
270	29*
271	181*233*307*
272	Composite(Ri)
273	5*29*97*
274	3*3*5*83*
275	3*7*13*149*461*
276	5*83*503*
277	7*487*
278	Composite(Ri)
279	Unknown
280	3*31*
281	3*3*11*17*
282	109*
283	31*
284	11*
285	11*569*
286	3*263*
287	3*5*19*31*
288	7*
289	577*
290	19*373*
291	13*
292	3*3*3*3*
293	3*5*11*
294	5*
295	197*421*
296	5*7*433*
297	593*
298	3*7*59*
299	3*3*11*19*
300	13*599*769*

DECIMAL REPRESENTATION OF 1/N IN BASE TWO

N	N_2	1/N	LENGTH OF PERIOD
2	10	0.1	--
3	11	0.01	2
4	100	0.01	--
5	101	0.0011	4
6	110	0.0 01	2
7	111	0.001	3
8	1000	0.001	--
9	1001	0.000111	6
10	1010	0.0 0011	4
11	1011	0.0001011101	10
12	1100	0.00 01	2
13	1101	0.000100111011	12
14	1110	0.0 001	3
15	1111	0.0001	4
16	10000	0.0001	--
17	10001	0.00001111	8
18	10010	0.0 000111	6
19	10011	0.000011010111100101	18
20	10100	0.00 0011	4
21	10101	0.000011	6
22	10110	0.0 0001011101	10
23	10111	0.00001011001	11
24	11000	0.000 01	2
25	11001	0.00001010001111010111	20
26	11010	0.0 000100111011	12
27	11011	0.000010010111101101	18
28	11100	0.00 001	3
29	11101	0.000010001101001111010111001011	28
30	11110	0.0 0001	4
31	11111	0.00001	5
32	100000	0.00001	--
33	100001	0.0000011111	10
34	100010	0.0 00001111	8
35	100011	0.000001110101	12
36	100100	0.00 000111	6
37	100101	0.000001101110101100111110010001010011	36
38	100110	0.0 000011010111100101	18
39	100111	0.000001101001	12
40	101000	0.000 0011	4

DECIMAL REPRESENTATION OF 1/N IN BASE TWO

N	N_2	1/N	LENGTH OF PERIOD
41	101001	0.0000011000111110011 1	20
42	101010	0.0 000011	6
43	101011	0.00000101111101	14
44	101100	0.00 0001011101	10
45	101101	0.000001011011	12
46	101110	0.0 00001011001	11
47	101111	0.000001010111001001100 01	23
48	110000	0.0000 01	2
49	110001	0.000001010011100101111	21
50	110010	0.0 000010100011110101111	20
51	110011	0.00000101	8
52	110100	0.00 000100111011	12
53	110101	0.000001001101010010000111001111101100101 0110111100011	52
54	110110	0.0 000010010111101101	18
55	110111	0.000001001010011110 01	20
56	111000	0.000 001	3
57	111001	0.000001000111110111	18
58	111010	0.0 000010001101001111011100 1011	28
59	111011	0.000001000101011011000111100101111101 1010010011100001101	58
60	111100	0.00 0001	4
61	111101	0.000001000011001001011100010100111 1101110011011010001110 1011	60
62	111110	0.0 00001	5
63	111111	0.000001	6
64	1000000	0.000001	--
65	1000001	0.000000111111	12
66	1000010	0.0 0000011111	10
67	1000011	0.000000111101001000100110001101010111111 0000101101110110011100 10101	66
68	1000100	0.00 00001111	8
69	1000101	0.000000111011010111 0011	22
70	1000110	0.0 000001110101	12
71	1000111	0.000000111001101100001010110100 01001	35
72	1001000	0.000 000111	6
73	1001001	0.000000111	9
74	1001010	0.0 000001101110101100111110010001010011	36
75	1001011	0.00000011011010011101	20
76	1001100	0.00 000011010111100101	18
77	1001101	0.000000110101001100011101111011	30
78	1001110	0.0 000001101001	12
79	1001111	0.000000110011111011001000111010010101 0001	39
80	1010000	0.0000 0011	4

DECIMAL REPRESENTATION OF 1/N IN BASE TWO

N	N_2	1/N	LENGTH OF PERIOD
81	1010001	0.000000110010100100010110000111111001101011011101001111	54
82	1010010	0.0 0000011000111110011	20
83	1010011	0.000000110001010110010111001000011110110101111111001110101001101000110111100001001	82
84	1010100	0.00 000011	6
85	1010101	0.00000011	8
86	1010110	0.0 00000101111101	14
87	1010111	0.000000101111000101001001100 1	28
88	1011000	0.000 0001011101	10
89	1011001	0.00000010111	11
90	1011010	0.0 000001011011	12
91	1011011	0.000000101101	12
92	1011100	0.00 00001011001	11
93	1011101	0.0000001011	10
94	1011110	0.0 000001010111001001100 01	23
95	1011111	0.000000101011000111011010010001100001	36
96	1100000	0.00000 01	2
97	1100001	0.000000101010001110100000111111010101110001011111	48
98	1100010	0.0 000001010011100101111	21
99	1100011	0.000000101001010111111010110101	30
100	1100100	0.00 000010100011110101 11	20

DECIMAL REPRESENTATION OF 1/N IN BASE THREE

N	N_3	1/N	LENGTH OF PERIOD
2	2	0.$\underline{1}$	1
3	10	0.$\overline{1}$	--
4	11	0.$\underline{02}$	2
5	12	0.$\underline{0121}$	4
6	20	0.0 $\underline{1}$	1
7	21	0.$\underline{010212}$	6
8	22	0.$\underline{01}$	2
9	100	0.$\overline{01}$	--
10	101	0.$\underline{0022}$	4
11	102	0.$\underline{00211}$	5
12	110	0.0 $\underline{02}$	2
13	111	0.$\underline{002}$	3
14	112	0.$\underline{001221}$	6
15	120	0.0 $\underline{0121}$	4
16	121	0.$\underline{0012}$	4
17	122	0.$\underline{0011202122110201}$	16
18	200	0.00 $\underline{1}$	1
19	201	0.$\underline{001102100221120122}$	18
20	202	0.$\underline{0011}$	4
21	210	0.0 $\underline{010212}$	6
22	211	0.$\underline{00102}$	5
23	212	0.$\underline{00101120021}$	11
24	220	0.0 $\underline{01}$	2
25	221	0.$\underline{00100201102212202112}$	20
26	222	0.$\underline{001}$	3
27	1000	0.$\overline{001}$	--
28	1001	0.$\underline{000222}$	6
29	1002	0.$\underline{000221010201112220012120211 1}$	28
30	1010	0.0 $\underline{0022}$	4
31	1011	0.$\underline{000212111221020222010111001202}$	30
32	1012	0.$\underline{00021121}$	8
33	1020	0.0 $\underline{00211}$	5
34	1021	0.$\underline{0002101022201212}$	16
35	1022	0.$\underline{000202211101}$	12
36	1100	0.00 $\underline{02}$	2
37	1101	0.$\underline{000201200222021022}$	18
38	1102	0.$\underline{000201011222021211}$	18
39	1110	0.0 $\underline{002}$	3
40	1111	0.$\underline{0002}$	4
41	1112	0.$\underline{00012221}$	8
42	1120	0.0 $\underline{001221}$	6
43	1121	0.$\underline{000121221202002111210222101001020220 111012}$	42

DECIMAL REPRESENTATION OF 1/N IN BASE THREE

N	N_3	1/N	LENGTH OF PERIOD
44	1122	0.0001211201	10
45	1200	0.00 0121	4
46	1201	0.000120211 22	11
47	1202	0.00012011121002022001011	23
48	1210	0.0 0012	4
49	1211	0.000112212200201211120222110010022021011102	42
50	1212	0.00011212012221101021	20
51	1220	0.0 0011202122110201	16
52	1221	0.000112	6
53	1222	0.000111202101012002112202212221110201212102201100 2001	52
54	2000	0.000 1	1
55	2001	0.00011102021212001222	20
56	2002	0.000111	6
57	2010	0.0 001102100221120122	18
58	2011	0.000110120100202221121021220 2	28
59	2012	0.000110100121110210222002021 21	29
60	2020	0.0 0011	4
61	2021	0.0001022212	10
62	2022	0.000102202110121222120020112101	30
63	2100	0.00 010212	6
64	2101	0.0001021011122022	16
65	2102	0.000102012211	12
66	2110	0.0 00102	5
67	2111	0.000101212202221210 1002	22
68	2112	0.0001012011100221	16
69	2120	0.0 00101120021	11
70	2121	0.000101102012	12
71	2122	0.000101021020002021121100111200122 01	35
72	2200	0.00 01	2
73	2201	0.000100222122	12
74	2202	0.000100211222122011	18
75	2210	0.0 001002011022122021 12	20
76	2211	0.000100120222122102	18
77	2212	0.000100110121211102220220012021	30
78	2220	0.0 001	3
79	2221	0.000100020011002201211012210212120201110 22212220221122002101121001201010202111 2	78
80	2222	0.0001	4

DECIMAL REPRESENTATION OF 1/N IN BASE THREE

N	N_3	1/N	LENGTH OF PERIOD
81	10000	0.0001	--
82	10001	0.00002222	8
83	10002	0.000022210010220101201211202211010020211111	41
84	10010	0.0 000222	6
85	10011	0.0000221201200202	16
86	10012	0.000022110212112202101222200112010 110020121	42
87	10020	0.0 000221010201112220012120211	28
88	10021	0.0000220212	10
89	10022	0.000022012011020200012110102211110010122021212222002102112020222101121200 1111221210020101	88
90	10100	0.00 0022	4
91	10101	0.000022	6
92	10102	0.000021220221112101021 1	22
93	10110	0.0 000212111221020222010111001202	30
94	10111	0.000021202101121221 12002	23
95	10112	0.000021200012010010102002021101111221	36
96	10120	0.0 00021121	8
97	10121	0.000021111220202212122210222201111002020010100012	48
98	10122	0.000021102211212102021222201120011010120201	42
99	10200	0.00 00211	5
100	10201	0.00002102121110200122	20

DECIMAL REPRESENTATION OF 1/N IN BASE FOUR

N	N_4	1/N	LENGTH OF PERIOD
2	2	0.2	--
3	3	0.$\overline{1}$	1
4	10	0.1	--
5	11	0.$\overline{03}$	2
6	12	0.0 $\overline{2}$	1
7	13	0.$\overline{021}$	3
8	20	0.02	--
9	21	0.$\overline{013}$	3
10	22	0.0 $\overline{12}$	2
11	23	0.$\overline{01131}$	5
12	30	0.0 $\overline{1}$	1
13	31	0.$\overline{010323}$	6
14	32	0.0 $\overline{102}$	3
15	33	0.$\overline{01}$	2
16	100	0.01	--
17	101	0.$\overline{0033}$	4
18	102	0.0 $\overline{032}$	3
19	103	0.$\overline{003113211}$	9
20	110	0.0 $\overline{03}$	2
21	111	0.$\overline{003}$	3
22	112	0.0 $\overline{02322}$	5
23	113	0.$\overline{00230201121}$	11
24	120	0.00 $\overline{2}$	1
25	121	0.$\overline{0022033113}$	10
26	122	0.0 $\overline{021312}$	6
27	123	0.$\overline{002113231}$	9
28	130	0.0 $\overline{021}$	3
29	131	0.$\overline{00203103313023}$	14
30	132	0.0 $\overline{02}$	2
31	133	0.$\overline{00201}$	5
32	200	0.002	--
33	201	0.$\overline{00133}$	5
34	202	0.0 $\overline{0132}$	4
35	203	0.$\overline{001311}$	6
36	210	0.0 $\overline{013}$	3
37	211	0.$\overline{001232230332101103}$	18
38	212	0.0 $\overline{012233022}$	9
39	213	0.$\overline{001221}$	6
40	220	0.00 $\overline{12}$	2
41	221	0.$\overline{0012033213}$	10
42	222	0.0 $\overline{012}$	3
43	223	0.$\overline{0011331}$	7
44	230	0.0 $\overline{01131}$	5
45	231	0.$\overline{001123}$	6

DECIMAL REPRESENTATION OF 1/N IN BASE FOUR

N	N_4	1/N	LENGTH OF PERIOD
46	232	0.0 01121002302	11
47	233	0.00111302120200223210301	23
48	300	0.00 1	1
49	301	0.00110321132002213023 3	21
50	302	0.0 0110132232	10
51	303	0.0011	4
52	310	0.0 010323	6
53	311	0.00103110201303323022313203	26
54	312	0.0 010233122	9
55	313	0.0010221321	10
56	320	0.00 102	3
57	321	0.001013313	9
58	322	0.0 01012213232112	14
59	323	0.00101112301321133131102130031	29
60	330	0.0 01	2
61	331	0.00100302113011033233031220322 3	30
62	332	0.0 01002	5
63	333	0.001	3
64	1000	0.001	--
65	1001	0.000333	6
66	1002	0.0 00332	5
67	1003	0.00033102021203111332011232303211 1	33
68	1010	0.0 0033	4
69	1011	0.00032311303	11
70	1012	0.0 003222	6
71	1013	0.00032123002231010200130312011122021	35
72	1020	0.00 032	3
73	1021	0.000320013	9
74	1022	0.0 003131121330202212	18
75	1023	0.0003122131	10
76	1030	0.0 003113211	9
77	1031	0.000311030131323	15
78	1032	0.0 003102	6
79	1033	0.00030331210131022202001213230203221 1101	39
80	1100	0.00 03	2
81	1101	0.00030221011201332122313 1033	27
82	1102	0.0 0030133032	10
83	1103	0.00030111211302013231133213110310123300211	41
84	1110	0.0 003	3
85	1111	0.0003	4
86	1112	0.0 0023322	7
87	1113	0.00023301102121	14

DECIMAL REPRESENTATION OF 1/N IN BASE FOUR

N	N_4	1/N	LENGTH OF PERIOD
88	1120	0.00 02322	5
89	1121	0.00023200113	11
90	1122	0.0 002312	6
91	1123	0.000231	6
92	1130	0.0 00230201121	11
93	1131	0.00023	5
94	1132	0.0 0022321030100111302120 2	23
95	1133	0.000223013122101201	18
96	1200	0.000 2	1
97	1201	0.000222032200333111301133	24
98	1202	0.0 002213023300110321132	21
99	1203	0.000221113322311	15
100	1210	0.0 0022033113	10

DECIMAL REPRESENTATION OF 1/N IN BASE FIVE

N	N_5	1/N	LENGTH OF PERIOD
2	2	0.$\underline{2}$	1
3	3	0.$\underline{13}$	2
4	4	0.$\underline{1}$	1
5	10	0.1	--
6	11	0.$\underline{04}$	2
7	12	0.$\underline{032412}$	6
8	13	0.$\underline{03}$	2
9	14	0.$\underline{023421}$	6
10	20	0.0 $\underline{2}$	1
11	21	0.$\underline{02114}$	5
12	22	0.$\underline{02}$	2
13	23	0.$\underline{0143}$	4
14	24	0.$\underline{013431}$	6
15	30	0.0 $\underline{13}$	2
16	31	0.$\underline{0124}$	4
17	32	0.$\underline{0121340243231042}$	16
18	33	0.$\underline{011433}$	6
19	34	0.$\underline{011242141}$	9
20	40	0.0 $\underline{1}$	1
21	41	0.$\underline{010434}$	6
22	42	0.$\underline{01032}$	5
23	43	0.$\underline{0102041332143424031123}$	22
24	44	0.$\underline{01}$	2
25	100	0.01	--
26	101	0.$\underline{0044}$	4
27	102	0.$\underline{004303322440141122}$	18
28	103	0.$\underline{004213}$	6
29	104	0.$\underline{00412334403211}$	14
30	110	0.0 $\underline{04}$	2
31	111	0.$\underline{004}$	3
32	112	0.$\underline{00342312}$	8
33	113	0.$\underline{0033432203}$	10
34	114	0.$\underline{0033142344113021}$	16
35	120	0.0 $\underline{032412}$	6
36	121	0.$\underline{003214}$	6
37	122	0.$\underline{003142122040113342441302322404331102}$	36
38	123	0.$\underline{003121043}$	9
39	124	0.$\underline{0031}$	4
40	130	0.0 $\underline{03}$	2

DECIMAL REPRESENTATION OF 1/N IN BASE FIVE

N	N_5	1/N	LENGTH OF PERIOD
41	131	0.0030110220441433422 4	20
42	132	0.002442	6
43	133	0.00242314122343404311144202130322101040133 3	42
44	134	0.00241	5
45	140	0.0 023421	6
46	141	0.0023243141044212013034	22
47	142	0.0023122104111424140101244213223403330203043432	46
48	143	0.0023	4
49	144	0.0022334143213314042434422110301231130402 01	42
50	200	0.00 2	1
51	201	0.0022111412410144	16
52	202	0.0022	4
53	203	0.0021344012014204110312233144231004324302403341322113	52
54	204	0.002124133442320411	18
55	210	0.0 02114	5
56	211	0.002104	6
57	212	0.002044030133412212	18
58	213	0.00203414424103	14
59	214	0.0020244034013214130111342112 1	29
60	220	0.0 02	2
61	221	0.0020110332101304424334112343 14	30
62	222	0.002	3
63	223	0.001443	6
64	224	0.0014340322421131	16
65	230	0.0 0143	4
66	231	0.0014213324	10
67	232	0.00141310102443031343 42	22
68	233	0.0014043422031233	16
69	234	0.0014012110344304323341	22
70	240	0.0 013431	6
71	241	0.00134	5
72	242	0.001332	6
73	243	0.0013240100320302011411040233221310214431204344124142433033403211223134 23	72
74	244	0.0013210332423041434431234112021403 01	36
75	300	0.00 13	2
76	301	0.001310244	9
77	302	0.0013024301122132100441334034 22	30
78	303	0.0013	4
79	304	0.0012423430223121144011131032200304024 11	39
80	310	0.0 0124	4

DECIMAL REPRESENTATION OF 1/N IN BASE FIVE

N	N_5	1/N	LENGTH OF PERIOD
81	311	0.00123242231134334031441424044321202213310110413003020 4	54
82	312	0.0012302332443214211 2	20
83	313	0.00122311130312403424212103301400422433441443221333141320410202323411430440220110 03	82
84	314	0.00122 1	6
85	320	0.0 0121340243231042	16
86	321	0.00121132033421424403044323312411023020041 4	42
87	322	0.0012042443240 2	14
88	323	0.001202234 3	10
89	324	0.00120024010302110422134432442043414233402231	44
90	330	0.0 01143 3	6
91	331	0.00114132242 4	12
92	332	0.0011344043022103231242	22
93	333	0.00113 3	6
94	334	0.00113110243032120423003443313342014123240214 41	46
95	340	0.0 01124214 1	9
96	341	0.0011223 4	8
97	342	0.00112102012331221411434410313340140022420403021244332342432113223033010034131104304422024041423 2	96
98	343	0.00111420441041320212144333024003403124232 3	42
99	344	0.00111240323142442214132431040 1	30
100	400	0.00 1 1	1

DECIMAL REPRESENTATION OF 1/N IN BASE SIX

N	N_6	1/N	LENGTH OF PERIOD
2	2	0.3	--
3	3	0.2	--
4	4	0.13	--
5	5	0.1	1
6	10	0.1	--
7	11	0.05	2
8	12	0.043	--
9	13	0.04	--
10	14	0.0 3	1
11	15	0.0313452421	10
12	20	0.03	--
13	21	0.024340531215	12
14	22	0.0 23	2
15	23	0.0 2	1
16	24	0.0213	--
17	25	0.0204122453514331	16
18	30	0.02	--
19	31	0.015211325	9
20	32	0.01 4	1
21	33	0.0 14	2
22	34	0.0 1345242103	10
23	35	0.01322030441	11
24	40	0.013	--
25	41	0.01235	5
26	42	0.0 121502434053	12
27	43	0.012	--
28	44	0.01 14	2
29	45	0.01124045443151	14
30	50	0.0 1	1
31	51	0.010545	6
32	52	0.01043	--
33	53	0.0 1031345242	10
34	54	0.0 1020412245351433	16
35	55	0.01	2
36	100	0.01	--
37	101	0.0055	4
38	102	0.0 054034423	9
39	103	0.0 053121502434	12
40	104	0.005 2	1
41	105	0.00513354124403302344550422014311522532 11	40
42	110	0.0 05	2
43	111	0.005	3
44	112	0.00 4524210313	10

DECIMAL REPRESENTATION OF 1/N IN BASE SIX

N	N_6	1/N	LENGTH OF PERIOD
45	113	0.00 4	1
46	114	0.0 04410132203	11
47	115	0.00433240302144201310521	23
48	120	0.0043	--
49	121	0.00422405513315	14
50	122	0.0 04153	5
51	123	0.0 0412245351433102	16
52	124	0.00 405312150243	12
53	125	0.00402414511245515314104431	26
54	130	0.004	--
55	131	0.0035321425	10
56	132	0.003 50	2
57	133	0.0 034423054	9
58	134	0.0 03420225213533	14
59	135	0.00335444022351041343242503014552201115332045142123130525 41	58
60	140	0.00 3	1
61	141	0.00331250404415445301434232022055224305151140110254121323533 5	60
62	142	0.0 032523	6
63	143	0.00 32	2
64	144	0.003213	--
65	145	0.003153441251	12
66	150	0.0 0313452421	10
67	151	0.00312020521233254215453151411304 5	33
68	152	0.00 3102041224535143	16
69	153	0.0 03044101322	11
70	154	0.0 03	2
71	155	0.00301304321405023113344522412040201	35
72	200	0.003	--
73	201	0.00254304234403540055301251321152015 5	36
74	202	0.0 0253	4
75	203	0.0 02514	5
76	204	0.00 250152113	9
77	205	0.0024455311	10
78	210	0.0 024340531215	12
79	211	0.00242232543444130403351235410214005245053133230121114251522043201453415503105	78
80	212	0.0024 1	1

DECIMAL REPRESENTATION OF 1/N IN BASE SIX

N	N_6	1/N	LENGTH OF PERIOD
81	213	0.0024	--
82	214	0.0 02344550422014311522532110051335412440 33	40
83	215	0.00233404200511212401422425203245254410 53 45532215135504434315413313035231030114502 1	82
84	220	0.00 23	2
85	221	0.0023125210435415	16
86	222	0.0 023	3
87	223	0.0 02252135330342	14
88	224	0.002 2421031345	10
89	225	0.00223212031225444151542143033502004 5 04241024553323435243301114040134125 2 2053551051314531	88
90	230	0.00 2	1
91	231	0.002212411525	12
92	232	0.00 22030441013	11
93	233	0.0 021534	6
94	234	0.0 02144201310521004332403	23
95	235	0.002135041	9
96	240	0.00213	--
97	241	0.002120553435	12
98	242	0.0 02112025344353	14
99	243	0.00 2103134524	10
100	244	0.00 20543	5

DECIMAL REPRESENTATION OF 1/N IN BASE SEVEN

N	N_7	1/N	LENGTH OF PERIOD
2	2	0.$\overline{3}$	1
3	3	0.$\overline{2}$	1
4	4	0.$\overline{15}$	2
5	5	0.$\overline{1254}$	4
6	6	0.$\overline{1}$	1
7	10	0.1	--
8	11	0.$\overline{06}$	2
9	12	0.$\overline{053}$	3
10	13	0.$\overline{0462}$	4
11	14	0.$\overline{0431162355}$	10
12	15	0.$\overline{04}$	2
13	16	0.$\overline{035245631421}$	12
14	20	0.0 $\overline{3}$	1
15	21	0.$\overline{0316}$	4
16	22	0.$\overline{03}$	2
17	23	0.$\overline{0261143464055232}$	16
18	24	0.$\overline{025}$	3
19	25	0.$\overline{024}$	3
20	26	0.$\overline{0231}$	4
21	30	0.0 $\overline{2}$	1
22	31	0.$\overline{0214064526}$	10
23	32	0.$\overline{02062511343646041553 23}$	22
24	33	0.$\overline{02}$	2
25	34	0.$\overline{0165}$	4
26	35	0.$\overline{016122650544}$	12
27	36	0.$\overline{015463241}$	9
28	40	0.0 $\overline{15}$	2
29	41	0.$\overline{0145536}$	7
30	42	0.$\overline{0143}$	4
31	43	0.$\overline{014031062154342}$	15
32	44	0.$\overline{0135}$	4
33	45	0.$\overline{0132520564}$	10
34	46	0.$\overline{0130421565362451}$	16
35	50	0.0 $\overline{1254}$	4
36	51	0.$\overline{012346}$	6
37	52	0.$\overline{012161463}$	9
38	53	0.$\overline{012}$	3
39	54	0.$\overline{011536432605}$	12
40	55	0.$\overline{0114}$	4
41	56	0.$\overline{0112363262135202250565543034045314644161}$	40
42	60	0.0 $\overline{1}$	1
43	61	0.$\overline{010656}$	6
44	62	0.$\overline{0105365613}$	10
45	63	0.$\overline{010423264552}$	12

DECIMAL REPRESENTATION OF 1/N IN BASE SEVEN

N	N_7	1/N	LENGTH OF PERIOD
46	64	0.$\overline{010312405216563542 6145}$	22
47	65	0.$\overline{010204112245235030 61534}$	23
48	66	0.$\overline{01}$	2
49	100	0.01	--
50	101	0.$\overline{0066}$	4
51	102	0.$\overline{0065035621241533}$	16
52	103	0.$\overline{006411323622}$	12
53	104	0.$\overline{006320535545166034613 11215}$	26
54	105	0.$\overline{006231454}$	9
55	106	0.$\overline{0061440336422015 3211}$	20
56	110	0.0 $\overline{06}$	2
57	111	0.$\overline{006}$	3
58	112	0.$\overline{0056253}$	7
59	113	0.$\overline{0055460233041032 1531265224162}$	29
60	114	0.$\overline{0055}$	4
61	115	0.$\overline{0054234463533621155652 5164406266124 3220313304551101415022604}$	60
62	116	0.$\overline{005350364425521}$	15
63	120	0.0 $\overline{053}$	3
64	121	0.$\overline{00523416}$	8
65	122	0.$\overline{005163661503}$	12
66	123	0.$\overline{0051243632}$	10
67	124	0.$\overline{0050556454330640344115 3013144624166 1611021233602632255136535220425}$	66
68	125	0.$\overline{0050210632531224}$	16
69	126	0.$\overline{0046540256121423516331}$	22
70	130	0.0 $\overline{0462}$	4
71	131	0.$\overline{0045550124430252160534 3514020331040 66211165422364145061323152646335626}$	70
72	132	0.$\overline{004523}$	6
73	133	0.$\overline{0044614260646622052 40602}$	24
74	134	0.$\overline{004430565}$	9
75	135	0.$\overline{0044}$	4
76	136	0.$\overline{004341}$	6
77	140	0.0 $\overline{0431162355}$	10
78	141	0.$\overline{004253214636}$	12
79	142	0.$\overline{0042251411030465065521335446054035 0232 3662441525563620160114533122061263164343}$	78
80	143	0.$\overline{0042}$	4
81	144	0.$\overline{0041433124516210602263655 35}$	27
82	145	0.$\overline{0041165131052434460266255015356142322064}$	40
83	146	0.$\overline{0040633130152532420521230562164022346555 1}$	41

DECIMAL REPRESENTATION OF 1/N IN BASE SEVEN

N	N_7	1/N	LENGTH OF PERIOD
84	150	0.0 04	2
85	151	0.0040150512136446	16
86	152	0.003663	6
87	153	0.0036412	7
88	154	0.0036166305	10
89	155	0.00356562021262411154432450143634606 415053352663101046454042555122342165 23032060251613314	88
90	156	0.003545132251	12
91	160	0.0 035245631421	12
92	161	0.0035045361066316213056	22
93	162	0.003455020516113	15
94	163	0.0034354044561160136425 2	23
95	164	0.003416260545	12
96	165	0.0034	4
97	166	0.00335160636532512412043552613050234522445562646566331506030134154254623114053616432144221104020 1	96
98	200	0.00 3	1
99	201	0.0033152421225540464345106301 66	30
100	202	0.0033	4

DECIMAL REPRESENTATION OF 1/N IN BASE EIGHT

N	N_8	1/N	LENGTH OF PERIOD
2	2	0.4	--
3	3	0.$\overline{25}$	2
4	4	0.2	--
5	5	0.$\overline{1463}$	4
6	6	0.1$\overline{25}$	2
7	7	0.$\overline{1}$	1
8	10	0.1	--
9	11	0.$\overline{07}$	2
10	12	0.0$\overline{6314}$	4
11	13	0.$\overline{0564272135}$	10
12	14	0.0$\overline{52}$	2
13	15	0.$\overline{0473}$	4
14	16	0.0$\overline{4}$	1
15	17	0.$\overline{0421}$	4
16	20	0.04	--
17	21	0.$\overline{03607417}$	8
18	22	0.0$\overline{34}$	2
19	23	0.$\overline{032745}$	6
20	24	0.0$\overline{3146}$	4
21	25	0.$\overline{03}$	2
22	26	0.0$\overline{2721350564}$	10
23	27	0.$\overline{02620544131}$	11
24	30	0.0$\overline{25}$	2
25	31	0.$\overline{0243656050753412 1727}$	20
26	32	0.0$\overline{2354}$	4
27	33	0.$\overline{022755}$	6
28	34	0.0$\overline{2}$	1
29	35	0.$\overline{021517345410647562604323 6713}$	28
30	36	0.0$\overline{2104}$	4
31	37	0.$\overline{02041}$	5
32	40	0.02	--
33	41	0.$\overline{0174076037}$	10
34	42	0.0$\overline{17036074}$	8
35	43	0.$\overline{0165}$	4
36	44	0.0$\overline{16}$	2
37	45	0.$\overline{015654762123}$	12
38	46	0.0$\overline{153624}$	6
39	47	0.$\overline{0151}$	4
40	50	0.0$\overline{1463}$	4
41	51	0.$\overline{0143716030763406 1747}$	20
42	52	0.0$\overline{14}$	2
43	53	0.$\overline{01372027640575}$	14
44	54	0.0$\overline{1350564272}$	10

DECIMAL REPRESENTATION OF 1/N IN BASE EIGHT

N	N_8	1/N	LENGTH OF PERIOD
45	55	0.0133	4
46	56	0.0 13102620544	11
47	57	0.012711420256230405344 61	23
48	60	0.01 25	2
49	61	0.0123457	7
50	62	0.0 12172702436560507534	20
51	63	0.01202405	8
52	64	0.0 1166	4
53	65	0.011522071754533614046510347662557 060232441637312 6743	52
54	66	0.0 113664	6
55	67	0.01123620224744045171	20
56	70	0.0 1	1
57	71	0.010767	6
58	72	0.0 10647562604323671302151734 54	28
59	73	0.010533074575651160640425543627672447 032021266171373522341 5	58
60	74	0.0 1042	4
61	75	0.01031134247674664353	20
62	76	0.0 10204	5
63	77	0.01	2
64	100	0.01	--
65	101	0.0077	4
66	102	0.0 0760370174	10
67	103	0.007510461527702673 1625	22
68	104	0.0 07417036	8
69	105	0.007327140355346016 6563	22
70	106	0.0 0724	4
71	107	0.007154126422016330255044034660532 11	35
72	110	0.0 07	2
73	111	0.007	3
74	112	0.0 067263710514	12
75	113	0.006647201551640332 35	20
76	114	0.0 065712	6
77	115	0.0065143573	10
78	116	0.0 0644	4
79	117	0.0063662164521	13
80	120	0.00 6314	4
81	121	0.006244260771533517	18
82	122	0.0 061747014371603076 34	20
83	123	0.006126271036657635232157022403053134417 327716515067411201425456207553747246433 6045	82

DECIMAL REPRESENTATION OF 1/N IN BASE EIGHT

N	N_8	1/N	LENGTH OF PERIOD
84	124	0.0 06	2
85	125	0.00601403	8
86	126	0.0 05750137202764	14
87	127	0.005705114402742446 2013612231	28
88	130	0.0 0564272135	10
89	131	0.00560134027	11
90	132	0.0 0554	4
91	133	0.0055	4
92	134	0.0 05441310262	11
93	135	0.0054026013	10
94	136	0.0 053446101271142025623 04	23
95	137	0.005307322141	12
96	140	0.00 52	2
97	141	0.0052164077256137	16
98	142	0.0 0516274	7
99	143	0.0051277265	10
100	144	0.0 0507534121727024 3656	20

DECIMAL REPRESENTATION OF 1/N IN BASE NINE

N	N_9	1/N	LENGTH OF PERIOD
2	2	0.$\overline{4}$	1
3	3	0.$\overline{3}$	--
4	4	0.$\overline{2}$	1
5	5	0.$\overline{17}$	2
6	6	0.1$\overline{4}$	1
7	7	0.$\overline{125}$	3
8	8	0.$\overline{1}$	1
9	10	0.$\overline{1}$	--
10	11	0.$\overline{08}$	2
11	12	0.$\overline{07324}$	5
12	13	0.0$\overline{6}$	1
13	14	0.$\overline{062}$	3
14	15	0.$\overline{057}$	3
15	16	0.0$\overline{53}$	2
16	17	0.$\overline{05}$	2
17	18	0.$\overline{04678421}$	8
18	20	0.0$\overline{4}$	1
19	21	0.$\overline{042327518}$	9
20	22	0.$\overline{04}$	2
21	23	0.0$\overline{376}$	3
22	24	0.$\overline{03612}$	5
23	25	0.$\overline{03462311507}$	11
24	26	0.0$\overline{3}$	1
25	27	0.$\overline{0321385675}$	10
26	28	0.$\overline{031}$	3
27	30	0.03	--
28	31	0.$\overline{028}$	3
29	32	0.$\overline{02712148617674}$	14
30	33	0.0$\overline{26}$	2
31	34	0.$\overline{025457228114052}$	15
32	35	0.$\overline{0247}$	4
33	36	0.0$\overline{24073}$	5
34	37	0.$\overline{02338655}$	8
35	38	0.$\overline{022741}$	6
36	40	0.0$\overline{2}$	1
37	41	0.$\overline{021628238}$	9
38	42	0.$\overline{021158254}$	9
39	43	0.0$\overline{206}$	3
40	44	0.$\overline{02}$	2
41	45	0.$\overline{0187}$	4
42	46	0.0$\overline{183}$	3
43	47	0.$\overline{017852074728331226435}$	21
44	48	0.$\overline{01751}$	5
45	50	0.0$\overline{17}$	2

DECIMAL REPRESENTATION OF 1/N IN BASE NINE

N	N_9	1/N	LENGTH OF PERIOD
46	51	0.$\overline{01675605248}$	11
47	52	0.$\overline{016453226113051470680 34}$	23
48	53	0.0 $\overline{16}$	2
49	54	0.$\overline{0157806545284032671 42}$	21
50	55	0.$\overline{0155187337}$	10
51	56	0.0 $\overline{15257363}$	8
52	57	0.$\overline{015}$	3
53	58	0.$\overline{014671162482787421772640 61}$	26
54	60	0.01 $\overline{4}$	1
55	61	0.$\overline{0142255058}$	10
56	62	0.$\overline{014}$	3
57	63	0.0 $\overline{137084656}$	9
58	64	0.$\overline{01351068753782}$	14
59	65	0.$\overline{013317423862253041054372806 77}$	29
60	66	0.0 $\overline{13}$	2
61	67	0.$\overline{01285}$	5
62	68	0.$\overline{012673558506471}$	15
63	70	0.0 $\overline{125}$	3
64	71	0.$\overline{01234568}$	8
65	72	0.$\overline{012184}$	6
66	73	0.0 $\overline{12036}$	5
67	74	0.$\overline{01178285332}$	11
68	75	0.$\overline{01164327}$	8
69	76	0.0 $\overline{11507034623}$	11
70	77	0.$\overline{011365}$	6
71	78	0.$\overline{011236067540450563033720224731461 81}$	35
72	80	0.0 $\overline{1}$	1
73	81	0.$\overline{010878}$	6
74	82	0.$\overline{010758564}$	9
75	83	0.0 $\overline{1064278246}$	10
76	84	0.$\overline{010528572}$	9
77	85	0.$\overline{010417742826167}$	15
78	86	0.0 $\overline{103}$	3
79	87	0.$\overline{010204081735725521428582756234705112245}$	39
80	88	0.$\overline{01}$	2
81	100	0.01	--
82	101	0.$\overline{0088}$	4
83	102	0.$\overline{008703811654684106743028312635175 27332244}$	41
84	103	0.0 $\overline{086}$	3

DECIMAL REPRESENTATION OF 1/N IN BASE NINE

N	N_9	1/N	LENGTH OF PERIOD
85	104	0.00851622	9
86	105	0.008425482358615113217	21
87	106	0.0 08336458055243	14
88	107	0.00825	5
89	108	0.008164220173384403567788072466871550 44853211	44
90	110	0.0 08	2
91	111	0.008	3
92	112	0.00782747124	11
93	113	0.0 077483686343166	15
94	114	0.00767155750602523478462	23
95	115	0.007605103362241457	18
96	116	0.0 0753	4
97	117	0.00745668558388143220330 5	24
98	118	0.007384772258646133521	21
99	120	0.0 07324	5
100	121	0.0072543618	10

DECIMAL REPRESENTATION OF 1/N IN BASE TEN

N	1/N	LENGTH OF PERIOD
2	0.5	--
3	0.3	1
4	0.25	--
5	0.2	--
6	0.1 6	1
7	0.142857	6
8	0.125	--
9	0.1	1
10	0.1	--
11	0.09	2
12	0.08 3	1
13	0.076923	6
14	0.0 714285	6
15	0.0 6	1
16	0.0625	--
17	0.0588235294117647	16
18	0.0 5	1
19	0.052631578947368421	18
20	0.05	--
21	0.047619	6
22	0.0 45	2
23	0.04347826086956521739 13	22
24	0.041 6	1
25	0.04	--
26	0.0 384615	6
27	0.037	3
28	0.03 571428	6
29	0.03448275862068965517241379 31	28
30	0.0 3	1
31	0.032258064516129	15
32	0.03125	--
33	0.03	2
34	0.0 2941176470588235	16
35	0.0 285714	6
36	0.02 7	1
37	0.027	3
38	0.0 263157894736842105	18
39	0.025641	6
40	0.025	--
41	0.02439	5
42	0.0 238095	6
43	0.023255813953488372093	21
44	0.02 27	2
45	0.0 2	1

DECIMAL REPRESENTATION OF 1/N IN BASE TEN

N	1/N	LENGTH OF PERIOD
46	0.0 217391304347826086956 5	22
47	0.0212765957446808510638297872340425531914893617	46
48	0.0208 3	1
49	0.0204081632653061224489795918367346938775 51	42
50	0.02	--
51	0.0196078431372549	16
52	0.01 923076	6
53	0.0188679245283	13
54	0.0 185	3
55	0.0 18	2
56	0.017 857142	6
57	0.017543859649122807	18
58	0.0 172413793103448275862068965 5	28
59	0.016949152542372881355932203389830508474576 27 11864406779661	58
60	0.01 6	1
61	0.016393442622950819672131147540983606557 377049180327868852459	60
62	0.0 161290322580645161290322580645	30
63	0.015873	6
64	0.015625	--
65	0.0 153846	6
66	0.0 15	2
67	0.014925373134328358208955223880597	33
68	0.01 4705882352941176	16
69	0.014492753623188405797 1	22
70	0.0 142857	6
71	0.014084507042253521126760563380281 69	35
72	0.013 8	1
73	0.01369863	8
74	0.0 135	3
75	0.01 3	1
76	0.01 315789473684210526	18
77	0.012987	6
78	0.0 128205	6
79	0.012658227848101265822784 81	26
80	0.0125	--
81	0.012345679	9
82	0.0 12195	5
83	0.012048192771084337349397590361445783132 53	41
84	0.01 190476	6
85	0.0 1176470588235294	16

DECIMAL REPRESENTATION OF 1/N IN BASE TEN

N	1/N	LENGTH OF PERIOD
86	0.0 11627906976744186046 5	21
87	0.011494252873563218390804597 7	28
88	0.011 363	3
89	0.011235955056179775280898876404494382022471 91	44
90	0.0 1	1
91	0.010989	6
92	0.01 086956521739130434782 6	22
93	0.010752688172043	15
94	0.0 106382978723404255319148936170212765957 4468085	46
95	0.0 105263157894736842.	18
96	0.01041 6	1
97	0.010309278350515463917525773195876288659 7938144329896907216494845360824742268041 2371134020618556 7	96
98	0.0 10204081632653061224489795918367346938775 5	42
99	0.01	2
100	0.01	--

DECIMAL REPRESENTATION OF 1/N IN BASE TWELVE

In this table, A represents ten and B, eleven.

N	N_{12}	1/N	LENGTH OF PERIOD
2	2	0.6	--
3	3	0.4	--
4	4	0.3	--
5	5	0.$\overline{2497}$	4
6	6	0.2	--
7	7	0.$\overline{186A35}$	6
8	8	0.16	--
9	9	0.14	--
10	A	0.1 $\overline{2497}$	4
11	B	0.$\overline{1}$	1
12	10	0.1	--
13	11	0.$\overline{0B}$	2
14	12	0.0 $\overline{A35186}$	6
15	13	0.0 $\overline{9724}$	4
16	14	0.09	--
17	15	0.$\overline{08579214B36429A7}$	16
18	16	0.08	--
19	17	0.$\overline{076B45}$	6
20	18	0.0 $\overline{7249}$	4
21	19	0.0 $\overline{6A3518}$	6
22	1A	0.0 $\overline{6}$	1
23	1B	0.$\overline{06316948421}$	11
24	20	0.06	--
25	21	0.$\overline{05915343A0B62A68781B}$	20
26	22	0.0 $\overline{56}$	2
27	23	0.054	--
28	24	0.0 $\overline{5186A3}$	6
29	25	0.$\overline{04B7}$	4
30	26	0.0 $\overline{4972}$	4
31	27	0.$\overline{0478AA093598166B74311B28623A55}$	30
32	28	0.046	--
33	29	0.0 $\overline{4}$	1
34	2A	0.0 $\overline{429A708579214B36}$	16
35	2B	0.$\overline{0414559B3931}$	12
36	30	0.04	--
37	31	0.$\overline{03A85232B}$	9
38	32	0.0 $\overline{395826}$	6
39	33	0.0 $\overline{38}$	2
40	34	0.03 $\overline{7249}$	4

DECIMAL REPRESENTATION OF 1/N IN BASE TWELVE

N	N_{12}	1/N	LENGTH OF PERIOD
41	35	0.036190A653277397A9B4B85A2B15689448241207	40
42	36	0.0 35186A	6
43	37	0.0342295A3AA730A068456B879926181148 B1B53765	42
44	38	0.0 3	1
45	39	0.03 2497	4
46	3A	0.0 31694842106	11
47	3B	0.0309236A882061647195441	23
48	40	0.03	--
49	41	0.02B322547A05A644A9380B908996741B61577 1283B	42
50	42	0.0 2A68781B05915343A0B6	20
51	43	0.0 29A708579214B364	16
52	44	0.0 29	2
53	45	0.02872B3A23205525A784640AA4B9349081989B 6696143757B117	52
54	46	0.028	--
55	47	0.0275	4
56	48	0.02 6A3518	6
57	49	0.0 263958	6
58	4A	0.0 2596	4
59	4B	0.025355A9433073A458409919B7151	29
60	50	0.0 2497	4
61	51	0.0243B2683192B4B	15
62	52	0.0 23A550478AA093598166B74311B286	30
63	53	0.02 35186A	6
64	54	0.023	--
65	55	0.0227	4
66	56	0.0 2	1
67	57	0.02195AB13065458939174 1523B34A0436B9A 2610A8B56763282A47A6980871B785	66
68	58	0.0 214B36429A708579	16
69	59	0.0 21063169484	11
70	5A	0.0 20828AB7A766	12
71	5B	0.020408142854A997732650A183469163061	35
72	60	0.02	--
73	61	0.01B807A82768A62B60BA03B413945315905B	36
74	62	0.0 1B4271756	9
75	63	0.0 1B05915343A0B62A6878	20
76	64	0.0 1A8A13	6
77	65	0.01A537	6
78	66	0.0 1A	2
79	67	0.019A593234126BA21628987A95	26
80	68	0.01 9724	4

DECIMAL REPRESENTATION OF 1/N IN BASE TWELVE

N	N_{12}	1/N	LENGTH OF PERIOD
81	69	0.0194	--
82	6A	0.0 190A653277397A9B4B85A2B15689448241207036	40
83	6B	0.01899B864406B33AA154239137459493052 55B171	41
84	70	0.0 186A35	6
85	71	0.0183B52823132B6B	16
86	72	0.0 181148B1B537650342295A3AA730A068456 B879926	42
87	73	0.0 17A4	4
88	74	0.01 7	1
89	75	0.0174BA47	8
90	76	0.01 7249	4
91	77	0.016BA5	6
92	78	0.0 16948421063	11
93	79	0.0 166B74311B28623A550478AA093598	30
94	7A	0.0 164719544103092 36A88206	23
95	7B	0.0162334B1481	12
96	80	0.016	--
97	81	0.01599340BA62287B	16
98	82	0.0 15771283B02B322547A05A644A9380B90899 6741B6	42
99	83	0.01 5	1
100	84	0.0 15343A0B62A68781B059	20

DECIMAL REPRESENTATION OF 1/N IN BASE SIXTEEN

A represents ten; B, eleven; C, twelve; D, thirteen; E, fourteen; F, fifteen

N	N_{16}	1/N	LENGTH OF PERIOD
2	2	0.8	--
3	3	0.$\overline{5}$	1
4	4	0.4	--
5	5	0.$\overline{3}$	1
6	6	0.2 $\overline{A}$	1
7	7	0.$\overline{249}$	3
8	8	0.2	--
9	9	0.$\overline{1C7}$	3
10	A	0.1 $\overline{9}$	1
11	B	0.$\overline{1745D}$	5
12	C	0.1 $\overline{5}$	1
13	D	0.$\overline{13B}$	3
14	E	0.1 $\overline{249}$	3
15	F	0.$\overline{1}$	1
16	10	0.1	--
17	11	0.$\overline{0F}$	2
18	12	0.0 $\overline{E38}$	3
19	13	0.$\overline{0D79435E5}$	9
20	14	0.0 $\overline{C}$	1
21	15	0.$\overline{0C3}$	3
22	16	0.0 $\overline{BA2E8}$	5
23	17	0.$\overline{0B21642C859}$	11
24	18	0.0 $\overline{A}$	1
25	19	0.$\overline{0A3D7}$	5
26	1A	0.0 $\overline{9D8}$	3
27	1B	0.$\overline{097B425ED}$	9
28	1C	0.0 $\overline{924}$	3
29	1D	0.$\overline{08D3DCB}$	7
30	1E	0.0 $\overline{8}$	1
31	1F	0.$\overline{08421}$	5
32	20	0.$\overline{08}$	--
33	21	0.$\overline{07C1F}$	5
34	22	0.0 $\overline{78}$	2
35	23	0.$\overline{075}$	3
36	24	0.0 $\overline{71C}$	3
37	25	0.$\overline{06EB3E453}$	9
38	26	0.0 $\overline{6BCA1AF28}$	9
39	27	0.$\overline{069}$	3
40	28	0.0 $\overline{6}$	1

DECIMAL REPRESENTATION OF 1/N IN BASE SIXTEEN

N	N_{16}	1/N	LENGTH OF PERIOD
41	29	0.063E7	5
42	2A	0.0 618	3
43	2B	0.05F417D	7
44	2C	0.0 5D174	5
45	2D	0.05B	3
46	2E	0.0 590B21642C8	11
47	2F	0.0572620AE4C415C9882B931	23
48	30	0.0 5	1
49	31	0.05397829CBC14E5E0A72F	21
50	32	0.0 51EB8	5
51	33	0.05	2
52	34	0.0 4EC	3
53	35	0.04D4873ECADE3	13
54	36	0.0 4BDA12F68	9
55	37	0.04A79	5
56	38	0.0 492	3
57	39	0.047DC11F7	9
58	3A	0.0 469EE58	7
59	3B	0.0456C797DD49C34115B1E5F75270D	29
60	3C	0.0 4	1
61	3D	0.04325C53EF368EB	15
62	3E	0.0 42108	5
63	3F	0.041	3
64	40	0.04	--
65	41	0.03F	3
66	42	0.0 3E0F8	5
67	43	0.03D226357E16ECE540F4898D5F85BB395	33
68	44	0.0 3C	2
69	45	0.03B5CC0ED73	11
70	46	0.0 3A8	3
71	47	0.039B0AD12073615A240E6C2B4481CD85689	35
72	48	0.0 38E	3
73	49	0.0381C0E07	9
74	4A	0.0 3759F2298	9
75	4B	0.0369D	5
76	4C	0.0 35E50D794	9
77	4D	0.03531DEC0D4C77B	15
78	4E	0.0 348	3
79	4F	0.033D91D2A2067B23A5440CF6474A8819EC8E951	39
80	50	0.0 3	1

DECIMAL REPRESENTATION OF 1/N IN BASE SIXTEEN

N	N_{16}	1/N	LENGTH OF PERIOD
81	51	0.0329161F9ADD3C0CA4587E6B74F	27
82	52	0.0 31F38	5
83	53	0.03159721ED7E75346F0940C565C87B5F9D4D1BC25	41
84	54	0.0 30C	3
85	55	0.03	2
86	56	0.0 2FA0BE8	7
87	57	0.02F1499	7
88	58	0.0 2E8BA	5
89	59	0.02E05C0B817	11
90	5A	0.0 2D8	3
91	5B	0.02D	3
92	5C	0.0 2C8590B2164	11
93	5D	0.02C0B	5
94	5E	0.0 2B9310572620AE4C415C988	23
95	5F	0.02B1DA461	9
96	60	0.02 A	1
97	61	0.02A3A0FD5C5F	12
98	62	0.0 29CBC14E5E0A72F053978	21
99	63	0.0295FAD40A57EB5	15
100	64	0.0 28F5C	5

CONTINUED FRACTION EXPANSIONS OF QUADRATIC SURDS

The table gives the continued fraction expansion of $\sqrt{D}$, the periodic portion of the expansion being underlined.

D	CONTINUED FRACTION EXPANSION OF $\sqrt{D}$
2	(1,2)
3	(1,1,2)
5	(2,4)
6	(2,2,4)
7	(2,1,1,1,4)
8	(2,1,4)
10	(3,6)
11	(3,3,6)
12	(3,2,6)
13	(3,1,1,1,1,6)
14	(3,1,2,1,6)
15	(3,1,6)
17	(4,8)
18	(4,4,8)
19	(4,2,1,3,1,2,8)
20	(4,2,8)
21	(4,1,1,2,1,1,8)
22	(4,1,2,4,2,1,8)
23	(4,1,3,1,8)
24	(4,1,8)
26	(5,10)
27	(5,5,10)
28	(5,3,2,3,10)
29	(5,2,1,1,2,10)
30	(5,2,10)
31	(5,1,1,3,5,3,1,1,10)
32	(5,1,1,1,10)
33	(5,1,2,1,10)
34	(5,1,4,1,10)
35	(5,1,10)
37	(6,12)
38	(6,6,12)
39	(6,4,12)
40	(6,3,12)
41	(6,2,2,12)
42	(6,2,12)
43	(6,1,1,3,1,5,1,3,1,1,12)
44	(6,1,1,1,2,1,1,1,12)
45	(6,1,2,2,2,1,12)
46	(6,1,3,1,1,2,6,2,1,1,3,1,12)
47	(6,1,5,1,12)
48	(6,1,12)
50	(7,14)

CONTINUED FRACTION EXPANSIONS OF QUADRATIC SURDS

D	CONTINUED FRACTION EXPANSION OF $\sqrt{D}$
51	(7,7,14)
52	(7,4,1,2,1,4,14)
53	(7,3,1,1,3,14)
54	(7,2,1,6,1,2,14)
55	(7,2,2,2,14)
56	(7,2,14)
57	(7,1,1,4,1,1,14)
58	(7,1,1,1,1,1,1,14)
59	(7,1,2,7,2,1,14)
60	(7,1,2,1,14)
61	(7,1,4,3,1,2,2,1,3,4,1,14)
62	(7,1,6,1,14)
63	(7,1,14)
65	(8,16)
66	(8,8,16)
67	(8,5,2,1,1,7,1,1,2,5,16)
68	(8,4,16)
69	(8,3,3,1,4,1,3,3,16)
70	(8,2,1,2,1,2,16)
71	(8,2,2,1,7,1,2,2,16)
72	(8,2,16)
73	(8,1,1,5,5,1,1,16)
74	(8,1,1,1,1,16)
75	(8,1,1,1,16)
76	(8,1,2,1,1,5,4,5,1,1,2,1,16)
77	(8,1,3,2,3,1,16)
78	(8,1,4,1,16)
79	(8,1,7,1,16)
80	(8,1,16)
82	(9,18)
83	(9,9,18)
84	(9,6,18)
85	(9,4,1,1,4,18)
86	(9,3,1,1,1,8,1,1,1,3,18)
87	(9,3,18)
88	(9,2,1,1,1,2,18)
89	(9,2,3,3,2,18)
90	(9,2,18)
91	(9,1,1,5,1,5,1,1,18)
92	(9,1,1,2,4,2,1,1,18)
93	(9,1,1,1,4,6,4,1,1,1,18)
94	(9,1,2,3,1,1,5,1,8,1,5,1,1,3,2,1,18)
95	(9,1,2,1,18)
96	(9,1,3,1,18)
97	(9,1,5,1,1,1,1,1,1,5,1,18)
98	(9,1,8,1,18)
99	(9,1,18)

D	CONTINUED FRACTION EXPANSION OF $\sqrt{D}$
101	(10,20)
102	(10,10,20)
103	(10,6,1,2,1,1,9,1,1,2,1,6,20)
104	(10,5,20)
105	(10,4,20)
106	(10,3,2,1,1,1,1,2,3,20)
107	(10,2,1,9,1,2,20)
108	(10,2,1,1,4,1,1,2,20)
109	(10,2,3,1,2,4,1,6,6,1,4,2,1,3,2,20)
110	(10,2,20)
111	(10,1,1,6,1,1,20)
112	(10,1,1,2,1,1,20)
113	(10,1,1,1,2,2,1,1,1,20)
114	(10,1,2,10,2,1,20)
115	(10,1,2,1,1,1,1,1,2,1,20)
116	(10,1,3,2,1,4,1,2,3,1,20)
117	(10,1,4,2,4,1,20)
118	(10,1,6,3,2,10,2,3,6,1,20)
119	(10,1,9,1,20)
120	(10,1,20)
122	(11,22)
123	(11,11,22)
124	(11,7,2,1,1,1,3,1,4,1,3,1,1,1,2,7,22)
125	(11,5,1,1,5,22)
126	(11,4,2,4,22)
127	(11,3,1,2,2,7,11,7,2,2,1,3,22)
128	(11,3,5,3,22)
129	(11,2,1,3,1,6,1,3,1,2,22)
130	(11,2,2,22)
131	(11,2,4,11,4,2,22)
132	(11,2,22)
133	(11,1,1,7,5,1,1,1,2,1,1,1,5,7,1,1,22)
134	(11,1,1,2,1,3,1,10,1,3,1,2,1,1,22)
135	(11,1,1,1,1,1,1,1,1,22)
136	(11,1,1,1,22)
137	(11,1,2,2,1,1,2,2,1,22)
138	(11,1,2,1,22)
139	(11,1,3,1,3,7,1,1,2,11,2,1,1,7,3,1,3,1,22)
140	(11,1,4,1,22)
141	(11,1,6,1,22)
142	(11,1,10,1,22)
143	(11,1,22)

CONTINUED FRACTION EXPANSIONS OF QUADRATIC SURDS

D	CONTINUED FRACTION EXPANSION OF $\sqrt{D}$
145	(12,24)
146	(12,12,24)
147	(12,8,24)
148	(12,6,24)
149	(12,4,1,5,3,3,5,1,4,24)
150	(12,4,24)
151	(12,3,2,7,1,3,4,1,1,1,11,1,1,1,4,3,1,7,2,3,24)
152	(12,3,24)
153	(12,2,1,2,2,2,1,2,24)
154	(12,2,2,3,1,2,1,3,2,2,24)
155	(12,2,4,2,24)
156	(12,2,24)
157	(12,1,1,7,1,5,2,1,1,1,1,2,5,1,7,1,1,24)
158	(12,1,1,3,12,3,1,1,24)
159	(12,1,1,1,1,3,1,1,1,1,24)
160	(12,1,1,1,5,1,1,1,24)
161	(12,1,2,4,1,2,1,4,2,1,24)
162	(12,1,2,1,2,12,2,1,2,1,24)
163	(12,1,3,3,2,1,1,7,1,11,1,7,1,1,2,3,3,1,24)
164	(12,1,4,6,4,1,24)
165	(12,1,5,2,5,1,24)
166	(12,1,7,1,1,1,2,4,1,3,2,12,2,3,1,4,2,1,1,1,7,1,24)
167	(12,1,11,1,24)
168	(12,1,24)
170	(13,26)
171	(13,13,26)
172	(13,8,1,2,2,1,1,3,6,3,1,1,2,2,1,8,26)
173	(13,6,1,1,6,26)
174	(13,5,4,5,26)
175	(13,4,2,1,2,4,26)
176	(13,3,1,3,26)
177	(13,3,3,2,8,2,3,3,26)
178	(13,2,1,12,1,2,26)
179	(13,2,1,1,1,3,5,13,5,3,1,1,1,2,26)
180	(13,2,2,2,26)
181	(13,2,4,1,8,6,1,1,1,1,2,2,1,1,1,1,6,8,1,4,2,26)
182	(13,2,26)
183	(13,1,1,8,1,1,26)
184	(13,1,1,3,2,1,2,1,2,3,1,1,26)
185	(13,1,1,1,1,26)
186	(13,1,1,1,3,4,3,1,1,1,26)
187	(13,1,2,13,2,1,26)
188	(13,1,2,2,6,2,2,1,26)
189	(13,1,2,1,26)
190	(13,1,3,1,1,1,2,2,2,1,1,1,3,1,26)

D	CONTINUED FRACTION EXPANSION OF $\sqrt{D}$
191	(13,1,4,1,1,3,2,2,13,2,2,3,1,1,4,1,26)
192	(13,1,5,1,26)
193	(13,1,8,3,2,1,3,3,1,2,3,8,1,26)
194	(13,1,12,1,26)
195	(13,1,26)
197	(14,28)
198	(14,14,28)
199	(14,9,2,1,2,2,5,4,1,1,13,1,1,4,5,2,2,1,2,9,28)
200	(14,7,28)

FUNDAMENTAL SOLUTIONS OF $x^2 - Ay^2 = +1$

A	x	y	A	x	y
2	3	2	51	50	7
3	2	1	52	649	90
5	9	4	53	66249	9100
6	5	2	54	485	66
7	8	3	55	89	12
8	3	1	56	15	2
10	19	6	57	151	20
			58	19603	2574
11	10	3	59	530	69
12	7	2	60	31	4
13	649	180			
14	15	4	61	1766319049	226153980
15	4	1	62	63	8
17	33	8	63	8	1
18	17	4	65	129	16
19	170	39	66	65	8
20	9	2	67	48842	5967
			68	33	4
21	55	12	69	7775	936
22	197	42	70	251	30
23	24	5			
24	5	1	71	3480	413
26	51	10	72	17	2
27	26	5	73	2281249	267000
28	127	24	74	3699	430
29	9801	1820	75	26	3
30	11	2	76	57769	6630
			77	351	40
31	1520	273	78	53	6
32	17	3	79	80	9
33	23	4	80	9	1
34	35	6			
35	6	1	82	163	18
37	73	12	83	82	9
38	37	6	84	55	6
39	25	4	85	285769	30996
40	19	3	86	10405	1122
			87	28	3
41	2049	320	88	197	21
42	13	2	89	500001	53000
43	3482	531	90	19	2
44	199	30			
45	161	24	91	1574	165
46	24335	3588	92	1151	120
47	48	7	93	12151	1260
48	7	1	94	2143295	221064
50	99	14	95	39	4

FUNDAMENTAL SOLUTIONS OF $x^2 - Ay^2 = +1$

A	x	y	A	x	y
96	49	5	141	95	8
97	62809633	6377352	142	143	12
98	99	10	143	12	1
99	10	1	145	289	24
			146	145	12
101	201	20	147	97	8
102	101	10	148	73	6
103	227528	22419	149	25801741449	2113761020
104	51	5	150	49	4
105	41	4			
106	32080051	3115890	151	1728148040	140634693
107	962	93	152	37	3
108	1351	130	153	2177	176
109	15807067	15140424	154	21295	1716
	1986249	455100	155	249	20
110	21	2	156	25	2
			157	466987287	372696429
111	295	28		31849	2220
112	127	12	158	7743	616
113	1204353	113296	159	1324	105
114	1025	96	160	721	57
115	1126	105			
116	9801	910	161	11775	928
117	649	60	162	19601	1540
118	306917	28254	163	64080026	5019135
119	120	11	164	2049	160
120	11	1	165	1079	84
			166	1700902565	132015642
122	243	22	167	168	13
123	122	11	168	13	1
124	4620799	414960	170	339	26
125	930249	83204			
126	449	40	171	170	13
127	4730624	419775	172	24248647	1848942
128	577	51	173	2499849	190060
129	16855	1484	174	1451	110
130	6499	570	175	2024	153
			176	199	15
131	10610	927	177	62423	4692
132	23	2	178	1601	120
133	2588599	224460	179	4190210	313191
134	145925	12606	180	161	12
135	244	21			
136	35	3			
137	6083073	519712			
138	47	4			
139	77563250	6578829			
140	71	6			

FUNDAMENTAL SOLUTIONS OF $x^2 - Ay^2 = +1$

A	x	y
181	2469645423	1835672986
	824185801	83461940
182	27	2
183	487	36
184	24335	1794
185	9249	680
186	7501	550
187	1682	123
188	4607	336
189	55	4
190	52021	3774
191	8994000	650783
192	97	7
193	6224323426	4480366040
	849	40
194	195	14
195	14	1
197	393	28
198	197	14
199	16266196520	1153080099
200	99	7

FUNDAMENTAL SOLUTIONS OF $x^2 - Ay^2 = -1$

In this table are listed those numbers A which fulfill the necessary conditions for a solution: (1) Having all odd prime factors of the form 4k+1; (2) If even, then not divisible by 4; (3) Not being a perfect square.

A	x	y	A	x	y
2	1	1	197	14	1
5	2	1	202	3141	221
10	3	1	205		
13	18	5	218	251	17
17	4	1	221		
26	5	1	226	15	1
29	70	13	229	1710	113
34			233	23156	1517
37	6	1	241	71011068	4574225
41	32	5	250	4443	281
50	7	1	257	16	1
53	182	25	265	6072	373
58	99	13	269	82	5
61	29718	3805	274	1407	85
65	8	1	277	8920484118	535979945
73	1068	125	281	1063532	63445
74	43	5	290	17	1
82	9	1	293	2482	145
85	378	41	298	409557	23725
89	500	53	305		
97	5604	569	313	126862368	7170685
101			314	443	25
106	4005	389	317	352618	19805
109	8890182	851525	325	18	1
113	776	73	337	1015827336	55335641
122			338	239	13
125	682	61	346	93	5
130	57	5	349	9210	493
137	1744	149	353	71264	3793
145			362	19	1
146			365	3458	181
149	113582	9305	370	327	17
157	4832118	385645	373	5118	265
170	13	1	377		
173	1118	85	386		
178			389	1282	65
181	1111225770	82596761	394	395023035	19900973
185	68	5	397	20478302982	1027776565
193	1764132	126985	401	20	1
194			409	111921796968	5534176685

PARTITIONS OF N INTO k OR FEWER PARTS

N \ k	1	2	3	4	5	6	7	8	9	10	11	12
1	1											
2	1	2										
3	1	2	3									
4	1	3	4	5								
5	1	3	5	6	7							
6	1	4	7	9	10	11						
7	1	4	8	11	13	14	15					
8	1	5	10	15	18	20	21	22				
9	1	5	12	18	23	26	28	29	30			
10	1	6	14	23	30	35	38	40	41	42		
11	1	6	16	27	37	44	49	52	54	55	56	
12	1	7	19	34	47	58	65	70	73	75	76	77
13	1	7	21	39	57	71	82	89	94	97	99	100
14	1	8	24	47	70	90	105	116	123	128	131	133
15	1	8	27	54	84	110	131	146	157	164	169	172
16	1	9	30	64	101	136	164	186	201	212	219	224
17	1	9	33	72	119	163	201	230	252	267	278	285
18	1	10	37	84	141	199	248	288	318	340	355	366
19	1	10	40	94	164	235	300	352	393	423	445	460
20	1	11	44	108	192	282	364	434	488	530	560	582
21	1	11	48	120	221	331	436	525	598	653	695	725
22	1	12	52	136	255	391	522	638	732	807	863	905
23	1	12	56	150	291	454	618	764	887	984	1060	1116
24	1	13	61	169	333	532	733	919	1076	1204	1303	1380
25	1	13	65	185	377	612	860	1090	1291	1455	1586	1686
26	1	14	70	206	427	709	1009	1297	1549	1761	1930	2063
27	1	14	75	225	480	811	1175	1527	1845	2112	2331	2503
28	1	15	80	249	540	931	1367	1801	2194	2534	2812	3036
29	1	15	85	270	603	1057	1579	2104	2592	3015	3370	3655
30	1	16	91	297	674	1206	1824	2462	3060	3590	4035	4401
31	1	16	96	321	748	1360	2093	2857	3589	4242	4802	5262
32	1	17	102	351	831	1540	2400	3319	4206	5013	5708	6290
33	1	17	108	378	918	1729	2738	3828	4904	5888	6751	7476
34	1	18	114	411	1014	1945	3120	4417	5708	6912	7972	8877
35	1	18	120	441	1115	2172	3539	5066	6615	8070	9373	10489
36	1	19	127	478	1226	2432	4011	5812	7657	9418	11004	12384
37	1	19	133	511	1342	2702	4526	6630	8824	10936	12866	14552
38	1	20	140	551	1469	3009	5102	7564	10156	12690	15021	17084
39	1	20	147	588	1602	3331	5731	8588	11648	14663	17475	19978
40	1	21	154	632	1747	3692	6430	9749	13338	16928	20298	23334

PARTITIONS OF N INTO k OR FEWER PARTS

	k									
N	1	2	3	4	5	6	7	8	9	10	11	12
41	1	21	161	672	1898	4070	7190	11018	15224	19466	23501	27156
42	1	22	169	720	2062	4494	8033	12450	17354	22367	27169	31570
43	1	22	176	764	2233	4935	8946	14012	19720	25608	31316	36578
44	1	23	184	816	2418	5427	9953	15765	22380	29292	36043	42333
45	1	23	192	864	2611	5942	11044	17674	25331	33401	41373	48849
46	1	24	200	920	2818	6510	12241	19805	28629	38047	47420	56297
47	1	24	208	972	3034	7104	13534	22122	32278	43214	54218	64707
48	1	25	217	1033	3266	7760	14950	24699	36347	49037	61903	74287
49	1	25	225	1089	3507	8442	16475	27493	40831	55494	70515	85067
50	1	26	234	1154	3765	9192	18138	30588	45812	62740	80215	97299

	k							
N	13	14	15	16	17	18	19	20
13	101							
14	134	135						
15	174	175	176					
16	227	229	230	231				
17	290	293	295	296	297			
18	373	378	381	383	384	385		
19	471	478	483	486	488	489	490	
20	597	608	615	620	623	625	626	627
21	747	762	773	780	785	788	790	791
22	935	957	972	983	990	995	998	1000
23	1158	1188	1210	1225	1236	1243	1248	1251
24	1436	1478	1508	1530	1545	1556	1563	1568
25	1763	1819	1861	1891	1913	1928	1939	1946
26	2164	2241	2297	2339	2369	2391	2406	2417
27	2637	2738	2815	2871	2913	2943	2965	2980
28	3210	3345	3446	3523	3579	3621	3651	3673
29	3882	4057	4192	4293	4370	4426	4468	4498
30	4691	4920	5096	5231	5332	5409	5465	5507
31	5635	5928	6158	6334	6469	6570	6647	6703
32	6761	7139	7434	7665	7841	7976	8077	8154
33	8073	8551	8932	9228	9459	9635	9770	9871
34	9624	10232	10715	11098	11395	11626	11802	11937
35	11424	12186	12801	13287	13671	13968	14199	14375
36	13542	14499	15272	15892	16380	16765	17062	17293
37	15988	17176	18148	18928	19551	20040	20425	20722
38	18847	20325	21535	22518	23303	23928	24418	24803
39	22142	23961	25469	26694	27684	28472	29098	29588
40	25971	28212	30073	31603	32839	33834	34624	35251

PARTITIONS OF N INTO k OR FEWER PARTS

	k							
N	13	14	15	16	17	18	19	20
41	30366	33104	35401	37292	38837	40080	41078	41869
42	35452	38797	41612	43951	45864	47420	48668	49668
43	41269	45326	48772	51643	54012	55940	57503	58754
44	47968	52888	57080	60603	63516	65907	67846	69414
45	55610	61538	66634	70927	74506	77449	79855	81801
46	64370	71509	77667	82898	87268	90889	93854	96271
47	74331	82882	90316	96650	101982	106408	110059	113039
48	85711	95943	104875	112540	119009	124418	128886	132559
49	98609	110795	121510	130738	138579	145149	150614	155112
50	113287	127786	140587	151685	161144	169120	175767	181274

	k							
N	21	22	23	24	25	26	27	28
21	792							
22	1001	1002						
23	1253	1254	1255					
24	1571	1573	1574	1575				
25	1951	1954	1956	1957	1958			
26	2424	2429	2432	2434	2435	2436		
27	2991	2998	3003	3006	3008	3009	3010	
28	3688	3699	3706	3711	3714	3716	3717	3718
29	4520	4535	4546	4553	4558	4561	4563	4564
30	5537	5559	5574	5585	5592	5597	5600	5602
31	6745	6775	6797	6812	6823	6830	6835	6838
32	8210	8252	8282	8304	8319	8330	8337	8342
33	9948	10004	10046	10076	10098	10113	10124	10131
34	12038	12115	12171	12213	12243	12265	12280	12291
35	14510	14611	14688	14744	14786	14816	14838	14853
36	17469	17604	17705	17782	17838	17880	17910	17932
37	20953	21129	21264	21365	21442	21498	21540	21570
38	25100	25331	25507	25642	25743	25820	25876	25918
39	29973	30270	30501	30677	30812	30913	30990	31046
40	35741	36126	36423	36654	36830	36965	37066	37143
41	42496	42986	43371	43668	43899	44075	44210	44311
42	50460	51087	51577	51962	52259	52490	52666	52801
43	59755	60547	61174	61664	62049	62346	62577	62753
44	70667	71669	72461	73088	73578	73963	74260	74491
45	83372	84626	85628	86420	87047	87537	87922	88219

PARTITIONS OF N INTO k OR FEWER PARTS

	k							
N	21	22	23	24	25	26	27	28
46	98222	99795	101050	102052	102844	103471	103961	104346
47	115463	117417	118991	120246	121248	122040	122667	123157
48	135550	137979	139935	141510	142765	143767	144559	145186
49	158800	161798	164230	166187	167762	169017	170019	170811
50	185794	189493	192496	194930	196888	198463	199718	200720

	k							
N	29	30	31	32	33	34	35	36
29	4565							
30	5603	5604						
31	6840	6841	6842					
32	8345	8347	8348	8349				
33	10136	10139	10141	10142	10143			
34	12298	12303	12306	12308	12309	12310		
35	14864	14871	14876	14879	14881	14882	14883	
36	17947	17958	17965	17970	17973	17975	17976	17977
37	21592	21607	21618	21625	21630	21633	21635	21636
38	25948	25970	25985	25996	26003	26008	26011	26013
39	31088	31118	31140	31155	31166	31173	31178	31181
40	37199	37241	37271	37293	37308	37319	37326	37331
41	44388	44444	44486	44516	44538	44553	44564	44571
42	52902	52979	53035	53077	53107	53129	53144	53155
43	62888	62989	63066	63122	63164	63194	63216	63231
44	74667	74802	74903	74980	75036	75078	75108	75130
45	88450	88626	88761	88862	88939	88995	89037	89067
46	104643	104874	105050	105185	105286	105363	105419	105461
47	123542	123839	124070	124246	124381	124482	124559	124615
48	145676	146061	146358	146589	146765	146900	147001	147078
49	171438	171928	172313	172610	172841	173017	173152	173253
50	201512	202139	202629	203014	203311	203542	203718	203853

PARTITIONS OF N INTO k OR FEWER PARTS

	k							
N	37	38	39	40	41	42	43	44
37	21637							
38	26014	26015						
39	31183	31184	31185					
40	37334	37336	37337	37338				
41	44576	44579	44581	44582	44583			
42	53162	53167	53170	53172	53173	53174		
43	63242	63249	63254	63257	63259	63260	63261	
44	75145	75156	75163	75168	75171	75173	75174	75175
45	89089	89104	89115	89122	89127	89130	89132	89133
46	105491	105513	105528	105539	105546	105551	105554	105556
47	124657	124687	124709	124724	124735	124742	124747	124750
48	147134	147176	147206	147228	147243	147254	147261	147266
49	173330	173386	173428	173458	173480	173495	173506	173513
50	203954	204031	204087	204129	204159	204181	204196	204207

	k					
N	45	46	47	48	49	50
45	89134					
46	105557	105558				
47	124752	124753	124754			
48	147269	147271	147272	147273		
49	173518	173521	173523	173524	173525	
50	204214	204219	204222	204224	204225	204226

PARTITIONS BY MAGNITUDE OF MAXIMUM ELEMENT

This table arranges the partitions of n by the magnitude of the maximum element. Using the numeration at the left it is possible to determine at a glance the number of partitions of n having a given maximum element. The reverse arrangement shows a common way of displaying partitions beginning with the largest element. Two-digit elements are underlined and separated from one-digit elements. A number in parentheses indicates the number of times a given element is to be taken.

n=2

No.	P
1	11
2	2

n=3

No.	P
1	111
2	21
3	3

n=4

No.	P
1	1111
2	211
3	22
4	31
5	4

n=5

No.	P
1	11111
2	2111
3	221
4	311
5	32
6	41
7	5

n=6

No.	P
1	111111
2	21111
3	2211
4	222
5	3111
6	321
7	33
8	411
9	42
10	51
11	6

n=7

No.	P
1	1111111
2	211111
3	22111
4	2221
5	31111
6	3211
7	322
8	331
9	4111
10	421
11	43
12	511
13	52
14	61
15	7

n=8

No.	P
1	11111111
2	2111111
3	221111
4	22211
5	2222
6	311111
7	32111
8	3221
9	3311
10	332
11	41111
12	4211
13	422
14	431
15	44
16	5111
17	521
18	53
19	611
20	62
21	71
22	8

n=9

No.	P
1	111111111
2	21111111
3	2211111
4	222111
5	22221
6	3111111
7	321111
8	32211
9	3222
10	33111
11	3321
12	333
13	411111
14	42111
15	4221
16	4311
17	432
18	441
19	51111
20	5211
21	522
22	531
23	54
24	6111
25	621
26	63
27	711
28	72
29	81
30	9

PARTITIONS BY MAGNITUDE OF MAXIMUM ELEMENT

n=10	
No.	P
1	1(10)
2	2 1(8)
3	22 1(6)
4	2221111
5	222211
6	22222
7	3 1(7)
8	32 1(5)
9	322111
10	32221
11	331111
12	33211
13	3322
14	3331
15	4 1(6)
16	421111
17	42211
18	4222
19	43111
20	4321
21	433
22	4411
23	442
24	5 1(5)
25	52111
26	5221
27	5311
28	532
29	541
30	55
31	61111
32	6211
33	622
34	631
35	64
36	7111
37	721
38	73
39	811
40	82
41	91
42	10

n=11	
No.	P
1	1(11)
2	2 1(9)
3	22 1(7)
4	22211111
5	2222111
6	222221
7	3 1(8)
8	32 1(6)
9	3221111
10	322211
11	32222
12	3311111
13	332111
14	33221
15	33311
16	3332
17	4 1(7)
18	42 1(5)
19	422111
20	42221
21	431111
22	43211
23	4322
24	4331
25	44111
26	4421
27	443
28	5 1(6)
29	521111
30	52211
31	5222
32	53111
33	5321
34	533
35	5411
36	542
37	551
38	611111
39	62111
40	6221
41	6311
42	632
43	641
44	65
45	71111
46	7211
47	722
48	731
49	74
50	8111

n=11(cont.)	
No.	P
51	821
52	83
53	911
54	92
55	10 1
56	11

n=12	
No.	P
1	1(12)
2	2 1(10)
3	22 1(8)
4	222 1(6)
5	22221111
6	2222211
7	222222
8	3 1(9)
9	32 1(7)
10	32211111
11	3222111
12	322221
13	33 1(6)
14	3321111
15	332211
16	33222
17	333111
18	33321
19	3333
20	4 1(8)
21	42 1(6)
22	4221111
23	422211
24	42222
25	4311111
26	432111
27	43221
28	43311
29	4332
30	441111
31	44211
32	4422
33	4431
34	444
35	5 1(7)
36	5211111
37	522111
38	52221
39	531111
40	53211
41	5322

n=12(cont.)

No.	P
42	5331
43	54111
44	5421
45	543
46	5511
47	552
48	6 1(6)
49	621111
50	62211
51	6222
52	63111
53	6321
54	633
55	6411
56	642
57	651
58	66
59	711111
60	72111
61	7221
62	7311
63	732
64	741
65	75
66	81111
67	8211
68	822
69	831
70	84
71	9111
72	921
73	93
74	10 11
75	10 2
76	11 1
77	12

n=13

No.	P
1	1(13)
2	2 1(11)
3	22 1(9)
4	222 1(7)
5	222211111
6	22222111
7	2222221
8	3 1(10)
9	32 1(8)
10	322 1(6)

n=13(cont.)

No.	P
11	32221111
12	3222211
13	322222
14	33 1(7)
15	33211111
16	3322111
17	332221
18	3331111
19	333211
20	33322
21	33331
22	4 1(9)
23	42 1(7)
24	42211111
25	4222111
26	422221
27	43 1(6)
28	4321111
29	432211
30	43222
31	433111
32	43321
33	4333
34	4411111
35	442111
36	44221
37	44311
38	4432
39	4441
40	5 1(8)
41	52 1(6)
42	5221111
43	522211
44	52222
45	5311111
46	532111
47	53221
48	53311
49	5332
50	541111
51	54211
52	5422
53	5431
54	544
55	55111
56	5521
57	553
58	6 1(7)
59	6211111

n=13(cont.)

No.	P
60	622111
61	62221
62	631111
63	63211
64	6322
65	6331
66	64111
67	6421
68	643
69	6511
70	652
71	661
72	7 1(6)
73	721111
74	72211
75	7222
76	73111
77	7321
78	733
79	7411
80	742
81	751
82	76
83	811111
84	82111
85	8221
86	8311
87	832
88	841
89	85
90	91111
91	9211
92	922
93	931
94	94
95	10 111
96	10 21
97	10 3
98	11 11
99	11 2
100	12 1
101	13

PARTITIONS BY MAGNITUDE OF MAXIMUM ELEMENT

n=14 No.	P
1	1(14)
2	2 1(12)
3	22 1(10)
4	222 1(8)
5	2(4) 1(6)
6	2(5) 1(4)
7	2(6) 1(2)
8	2(7)
9	3 1(11)
10	32 1(9)
11	322 1(7)
12	3222 1(5)
13	32222111
14	3222221
15	33 1(8)
16	332 1(6)
17	33221111
18	3322211
19	332222
20	33311111
21	3332111
22	333221
23	333311
24	33332
25	4 1(10)
26	42 1(8)
27	422 1(6)
28	4222 1(4)
29	4222211
30	422222
31	43 1(7)
32	432 1(5)
33	4322111
34	432221
35	4331111
36	433211
37	43322
38	43331
39	44 1(6)
40	4421111
41	442211
42	44222
43	443111
44	44321
45	4433
46	44411
47	4442
48	5 1(9)

n=14(cont.) No.	P
49	52 1(7)
50	522 1(5)
51	5222111
52	522221
53	53 1(6)
54	5321111
55	532211
56	53222
57	533111
58	53321
59	5333
60	54 1(5)
61	542111
62	54221
63	54311
64	5432
65	5441
66	551111
67	55211
68	5522
69	5531
70	554
71	6 1(8)
72	62 1(6)
73	6221111
74	622211
75	62222
76	63 1(5)
77	632111
78	63221
79	63311
80	6332
81	641111
82	64211
83	6422
84	6431
85	644
86	65111
87	6521
88	653
89	6611
90	662
91	7 1(7)
92	72 1(5)
93	722111
94	72221
95	731111
96	73211

n=14(cont.) No.	P
97	7322
98	7331
99	74111
100	7421
101	743
102	7511
103	752
104	761
105	77
106	8 1(6)
107	821111
108	82211
109	8222
110	83111
111	8321
112	833
113	8411
114	842
115	851
116	86
117	911111
118	92111
119	9221
120	9311
121	932
122	941
123	95
124	$\overline{10}$ 1111
125	$\overline{10}$ 211
126	$\overline{10}$ 22
127	$\overline{10}$ 31
128	$\overline{10}$ 4
129	$\overline{11}$ 111
130	$\overline{11}$ 21
131	$\overline{11}$ 3
132	$\overline{12}$ 11
133	$\overline{12}$ 2
134	$\overline{13}$ 1
135	$\overline{14}$

PARTITIONS BY MAGNITUDE OF MAXIMUM ELEMENT

n=15 No.	P
1	1(15)
2	2 1(13)
3	22 1(11)
4	222 1(9)
5	2(4) 1(7)
6	2(5) 1(5)
7	2(6) 1(3)
8	2(7) 1
9	3 1(12)
10	32 1(10)
11	322 1(8)
12	3222 1(6)
13	3 2(4) 1(4)
14	3 2(5) 11
15	3 2(6)
16	33 1(9)
17	332 1(7)
18	3322 1(5)
19	33222111
20	3322221
21	333 1(6)
22	3332 1(4)
23	3332211
24	333222
25	3333111
26	333321
27	33333
28	4 1(11)
29	42 1(9)
30	422 1(7)
31	4222 1(5)
32	42222111
33	4222221
34	43 1(8)
35	432 1(6)
36	4322 1(4)
37	4322211
38	432222
39	43311111
40	4332111
41	433221
42	433311
43	43332
44	44 1(7)
45	442 1(5)
46	4422111
47	442221
48	4431111

n=15(cont.) No.	P
49	443211
50	44322
51	44331
52	444111
53	44421
54	4443
55	5 1(10)
56	52 1(8)
57	522 1(6)
58	5222 1(4)
59	5222211
60	522222
61	53 1(7)
62	532 1(5)
63	5322111
64	532221
65	5331111
66	533211
67	53322
68	53331
69	54 1(6)
70	5421111
71	542211
72	54222
73	543111
74	54321
75	5433
76	54411
77	5442
78	55 1(5)
79	552111
80	55221
81	55311
82	5532
83	5541
84	555
85	6 1(9)
86	62 1(7)
87	622 1(5)
88	6222111
89	622221
90	63 1(6)
91	6321111
92	632211
93	63222
94	633111
95	63321
96	6333

n=15(cont.) No.	P
97	6411111
98	642111
99	64221
100	64311
101	6432
102	6441
103	651111
104	65211
105	6522
106	6531
107	654
108	66111
109	6621
110	663
111	7 1(8)
112	72 1(6)
113	7221111
114	722211
115	72222
116	73 1(5)
117	732111
118	73221
119	73311
120	7332
121	741111
122	74211
123	7422
124	7431
125	744
126	75111
127	7521
128	753
129	7611
130	762
131	771
132	8 1(7)
133	82 1(5)
134	822111
135	82221
136	831111
137	83211
138	8322
139	8331
140	84111
141	8421
142	843
143	8511
144	852

n=15(cont.)

No.	P
145	861
146	87
147	9 1(6)
148	921111
149	92211
150	9222
151	93111
152	9321
153	933
154	9411
155	942
156	951
157	96
158	$\overline{10}$ 11111
159	$\overline{10}$ 2111
160	$\overline{10}$ 221
161	$\overline{10}$ 311
162	$\overline{10}$ 32
163	$\overline{10}$ 41
164	$\overline{10}$ 5
165	$\overline{11}$ 1111
166	$\overline{11}$ 211
167	$\overline{11}$ 22
168	$\overline{11}$ 31
169	$\overline{11}$ 4
170	$\overline{12}$ 111
171	$\overline{12}$ 21
172	$\overline{12}$ 3
173	$\overline{13}$ 11
174	$\overline{13}$ 2
175	$\overline{14}$ 1
176	$\overline{15}$

PARTITIONS ARRANGED BY NUMBER OF ELEMENTS

n=2

No.	P
1	2
2	11

n=3

No.	P
1	3
2	21
3	111

n=4

No.	P
1	4
2	31
3	22
4	211
5	1111

n=5

No.	P
1	5
2	41
3	32
4	311
5	221
6	2111
7	11111

n=6

No.	P
1	6
2	51
3	42
4	33
5	411
6	321
7	222
8	3111
9	2211
10	21111
11	1(6)

n=7

No.	P
1	7
2	61
3	52
4	43
5	511
6	421

n=7(cont.)

No.	P
7	331
8	322
9	4111
10	3211
11	2221
12	31111
13	22111
14	2 1(5)
15	1(7)

n=8

No.	P
1	8
2	71
3	62
4	53
5	44
6	611
7	521
8	431
9	422
10	332
11	5111
12	4211
13	3311
14	3221
15	2222
16	41111
17	32111
18	22211
19	3 1(5)
20	22 1(4)
21	2 1(6)
22	1(8)

n=9

No.	P
1	9
2	81
3	72
4	63
5	54
6	711
7	621
8	531
9	522
10	441
11	432
12	333

n=9(cont.)

No.	P
13	6111
14	5211
15	4311
16	4221
17	3321
18	3222
19	51111
20	42111
21	33111
22	32211
23	22221
24	411111
25	321111
26	222111
27	3 1(6)
28	22 1(5)
29	2 1(7)
30	1(9)

n=10

No.	P
1	10
2	91
3	82
4	73
5	64
6	55
7	811
8	721
9	631
10	622
11	541
12	532
13	442
14	433
15	7111
16	6211
17	5311
18	5221
19	4411
20	4321
21	4222
22	3331
23	3322
24	6 1(4)
25	52111
26	43111
27	42211
28	33211

n=10(cont.)

29	32221
30	22222
31	511111
32	421111
33	331111
34	322111
35	222211
36	4 1(6)
37	32 1(5)
38	222 1(4)
39	3 1(7)
40	22 1(6)
41	2 1(8)
42	1(10)

n=11

1	11
2	10 1
3	92
4	83
5	74
6	65
7	911
8	821
9	731
10	722
11	641
12	632
13	551
14	542
15	533
16	443
17	8111
18	7211
19	6311
20	6221
21	5411
22	5321
23	5222
24	4421
25	4331
26	4322
27	3332
28	71111
29	62111
30	53111
31	52211
32	44111

n=11(cont.)

33	43211
34	42221
35	33311
36	33221
37	32222
38	611111
39	521111
40	431111
41	422111
42	332111
43	322211
44	222221
45	5 1(6)
46	42 1(5)
47	33 1(5)
48	3221111
49	2222111
50	4 1(7)
51	32 1(6)
52	222 1(5)
53	3 1(8)
54	22 1(7)
55	2 1(9)
56	1(11)

n=12

No.	P
1	12
2	11 1
3	10 2
4	93
5	84
6	75
7	66
8	10 11
9	921
10	831
11	822
12	741
13	732
14	651
15	642
16	633
17	552
18	543
19	444
20	9111
21	8211

n=12(cont.)

No.	P
22	7311
23	7221
24	6411
25	6321
26	6222
27	5511
28	5421
29	5331
30	5322
31	4431
32	4422
33	4332
34	3333
35	81111
36	72111
37	63111
38	62211
39	54111
40	53211
41	52221
42	44211
43	43311
44	43221
45	42222
46	33321
47	33222
48	711111
49	621111
50	531111
51	522111
52	441111
53	432111
54	422211
55	333111
56	332211
57	322221
58	222222
59	6 1(6)
60	52 1(5)
61	43 1(5)
62	4221111
63	3321111
64	3222111
65	2222211
66	5 1(7)
67	42 1(6)
68	33 1(6)

n=12 (cont.)

No.	P
69	322 1(5)
70	22221111
71	4 1(8)
72	32 1(7)
73	222 1(6)
74	3 1(9)
75	22 1(8)
76	2 1(10)
77	1(12)

n=13

No.	P
1	$\overline{13}$
2	$\overline{12}$ 1
3	$\overline{11}$ 2
4	$\overline{10}$ 3
5	$\overline{94}$
6	85
7	76
8	$\overline{11}$ 11
9	$\overline{10}$ 21
10	931
11	922
12	841
13	832
14	751
15	742
16	733
17	661
18	652
19	643
20	553
21	544
22	$\overline{10}$ 111
23	9211
24	8311
25	8221
26	7411
27	7321
28	7222
29	6511
30	6421
31	6331
32	6322
33	5521
34	5431
35	5422
36	5332

n=13(cont.)

37	4441
38	4432
39	4333
40	91111
41	82111
42	73111
43	72211
44	64111
45	63211
46	62221
47	55111
48	54211
49	53311
50	53221
51	52222
52	44311
53	44221
54	43321
55	43222
56	33331
57	33322
58	811111
59	721111
60	631111
61	622111
62	541111
63	532111
64	522211
65	442111
66	433111
67	432211
68	422221
69	333211
70	332221
71	322222
72	7 1(6)
73	62 1(5)
74	53 1(5)
75	5221111
76	44 1(5)
77	4321111
78	4222111
79	3331111
80	3322111
81	3222211
82	2222221
83	6 1(7)
84	52 1(6)
85	43 1(6)

n=13(cont.)

86	422 1(5)
87	332 1(5)
88	32221111
89	2(5) 1(3)
90	5 1(8)
91	42 1(7)
92	33 1(7)
93	322 1(6)
94	2(4) 1(5)
95	4 1(9)
96	32 1(8)
97	222 1(7)
98	3 1(10)
99	22 1(9)
100	2 1(11)
101	1(13)

n=14

No.	P
1	$\overline{14}$
2	$\overline{13}$ 1
3	$\overline{12}$ 2
4	$\overline{11}$ 3
5	$\overline{10}$ 4
6	$\overline{95}$
7	86
8	77
9	$\overline{12}$ 11
10	$\overline{11}$ 21
11	$\overline{10}$ 31
12	$\overline{10}$ 22
13	941
14	932
15	851
16	842
17	833
18	761
19	752
20	743
21	662
22	653
23	644
24	554
25	$\overline{11}$ 111
26	$\overline{10}$ 211
27	9311
28	9221
29	8411
30	8321

n=14(cont.)

No.	P
31	8222
32	7511
33	7421
34	7331
35	7322
36	6611
37	6521
38	6431
39	6422
40	6332
41	5531
42	5522
43	5441
44	5432
45	5333
46	4442
47	4433
48	10 1111
49	92111
50	83111
51	82211
52	74111
53	73211
54	72221
55	65111
56	64211
57	63311
58	63221
59	62222
60	55211
61	54311
62	54221
63	53321
64	53222
65	44411
66	44321
67	44222
68	43331
69	43322
70	33332
71	9 1(5)
72	821111
73	731111
74	722111
75	641111
76	632111
77	622211
78	551111

n=14(cont.)

79	542111
80	533111
81	532211
82	522221
83	443111
84	442211
85	433211
86	432221
87	422222
88	333311
89	333221
90	332222
91	8 1(6)
92	72 1(5)
93	63 1(5)
94	6221111
95	54 1(5)
96	5321111
97	5222111
98	4421111
99	4331111
100	4322111
101	4222211
102	3332111
103	3322211
104	3222221
105	2(7)
106	7 1(7)
107	62 1(6)
108	53 1(6)
109	522 1(5)
110	44 1(6)
111	432 1(5)
112	4222 1(4)
113	333 1(5)
114	33221111
115	32222111
116	2(6) 1(2)
117	6 1(8)
118	52 1(7)
119	43 1(7)
120	422 1(6)
121	332 1(6)
122	3222 1(5)
123	2(5) 1(4)
124	5 1(9)
125	42 1(8)
126	33 1(8)
127	322 1(7)

n=14(cont.)

128	2222 1(6)
129	4 1(10)
130	32 1(9)
131	222 1(8)
132	3 1(11)
133	22 1(10)
134	2 1(12)
135	1(14)

n=15

No.	P
1	15
2	14 1
3	13 2
4	12 3
5	11 4
6	10 5
7	96
8	87
9	13 11
10	12 21
11	11 31
12	11 22
13	10 41
14	10 32
15	951
16	942
17	933
18	861
19	852
20	843
21	771
22	762
23	753
24	744
25	663
26	654
27	555
28	12 111
29	11 211
30	10 311
31	10 221
32	9411
33	9321
34	9222
35	8511
36	8421
37	8331
38	8322

n=15(cont.)

No.	P
39	7611
40	7521
41	7431
42	7422
43	7332
44	6621
45	6531
46	6522
47	6441
48	6432
49	6333
50	5541
51	5532
52	5442
53	5433
54	4443
55	11 1111
56	10 2111
57	93111
58	92211
59	84111
60	83211
61	82221
62	75111
63	74211
64	73311
65	73221
66	72222
67	66111
68	65211
69	64311
70	64221
71	63321
72	63222
73	55311
74	55221
75	54411
76	54321
77	54222
78	53331
79	53322
80	44421
81	44331
82	44322
83	43332
84	33333
85	10 1(5)

n=15(cont.)

No.	P
86	921111
87	831111
88	822111
89	741111
90	732111
91	722211
92	651111
93	642111
94	633111
95	632211
96	622221
97	552111
98	543111
99	542211
100	533211
101	532221
102	522222
103	444111
104	443211
105	442221
106	433311
107	433221
108	432222
109	333321
110	333222
111	9 1(6)
112	82 1(5)
113	73 1(5)
114	722 1(4)
115	64 1(5)
116	632 1(4)
117	6222111
118	55 1(5)
119	5421111
120	5331111
121	5322111
122	5222211
123	4431111
124	4422111
125	4332111
126	4322211
127	4222221
128	3333111
129	3332211
130	3322221
131	3222222
132	8 1(7)

n=15 (cont.)

No.	P
133	72 1(6)
134	63 1(6)
135	622 1(5)
136	54 1(6)
137	532 1(5)
138	52221111
139	442 1(5)
140	433 1(5)
141	43221111
142	42222111
143	33321111
144	33222111
145	32222211
146	22222221
147	7 1(8)
148	62 1(7)
149	53 1(7)
150	522 1(6)
151	44 1(7)
152	432 1(6)
153	4222 1(5)
154	333 1(6)
155	3322 1(5)
156	3 2(4) 1(4)
157	2(6) 1(3)
158	6 1(9)
159	52 1(8)
160	43 1(8)
161	422 1(7)
162	332 1(7)
163	3222 1(6)
164	2(5) 1(5)
165	5 1(10)
166	42 1(9)
167	33 1(9)
168	322 1(8)
169	2(4) 1(7)
170	4 1(11)
171	32 1(10)
172	222 1(9)
173	3 1(12)
174	22 1(11)
175	2 1(13)
176	1(15)

FAREY FRACTIONS

n	FAREY FRACTIONS								
1	0/1	1/1							
2	0/1	1/2	1/1						
3	0/1	1/3	1/2	2/3	1/1				
4	0/1	1/4	1/3	1/2	2/3	3/4	1/1		
5	0/1	1/5	1/4	1/3	2/5	1/2	3/5	2/3	3/4
	4/5	1/1							
6	0/1	1/6	1/5	1/4	1/3	2/5	1/2	3/5	2/3
	3/4	4/5	5/6	1/1					
7	0/1	1/7	1/6	1/5	1/4	2/7	1/3	2/5	3/7
	1/2	4/7	3/5	2/3	5/7	3/4	4/5	5/6	6/7
	1/1								
8	0/1	1/8	1/7	1/6	1/5	1/4	2/7	1/3	3/8
	2/5	3/7	1/2	4/7	3/5	5/8	2/3	5/7	3/4
	4/5	5/6	6/7	7/8	1/1				
9	0/1	1/9	1/8	1/7	1/6	1/5	2/9	1/4	2/7
	1/3	3/8	2/5	3/7	4/9	1/2	5/9	4/7	3/5
	5/8	2/3	5/7	3/4	7/9	4/5	5/6	6/7	7/8
	8/9	1/1							
10	0/1	1/10	1/9	1/8	1/7	1/6	1/5	2/9	1/4
	2/7	3/10	1/3	3/8	2/5	3/7	4/9	1/2	5/9
	4/7	3/5	5/8	2/3	7/10	5/7	3/4	7/9	4/5
	5/6	6/7	7/8	8/9	9/10	1/1			
11	0/1	1/11	1/10	1/9	1/8	1/7	1/6	2/11	1/5
	2/9	1/4	3/11	2/7	3/10	1/3	4/11	3/8	2/5
	3/7	4/9	5/11	1/2	6/11	5/9	4/7	3/5	5/8
	7/11	2/3	7/10	5/7	8/11	3/4	7/9	4/5	9/11
	5/6	6/7	7/8	8/9	9/10	10/11	1/1		
12	0/1	1/12	1/11	1/10	1/9	1/8	1/7	1/6	2/11
	1/5	2/9	1/4	3/11	2/7	3/10	1/3	4/11	3/8
	2/5	5/12	3/7	4/9	5/11	1/2	6/11	5/9	4/7
	7/12	3/5	5/8	7/11	2/3	7/10	5/7	8/11	3/4
	7/9	4/5	9/11	5/6	6/7	7/8	8/9	9/10	10/11
	11/12	1/1							

FAREY FRACTIONS

n	FAREY FRACTIONS								
13	0/1	1/13	1/12	1/11	1/10	1/9	1/8	1/7	2/13
	1/6	2/11	1/5	2/9	3/13	1/4	3/11	2/7	3/10
	4/13	1/3	4/11	3/8	5/13	2/5	5/12	3/7	4/9
	5/11	6/13	1/2	7/13	6/11	5/9	4/7	7/12	3/5
	8/13	5/8	7/11	2/3	9/13	7/10	5/7	8/11	3/4
	10/13	7/9	4/5	9/11	5/6	11/13	6/7	7/8	8/9
	9/10	10/11	11/12	12/13	1/1				
14	0/1	1/14	1/13	1/12	1/11	1/10	1/9	1/8	1/7
	2/13	1/6	2/11	1/5	3/14	2/9	3/13	1/4	3/11
	2/7	3/10	4/13	1/3	5/14	4/11	3/8	5/13	2/5
	5/12	3/7	4/9	5/11	6/13	1/2	7/13	6/11	5/9
	4/7	7/12	3/5	8/13	5/8	7/11	9/14	2/3	9/13
	7/10	5/7	8/11	3/4	10/13	7/9	11/14	4/5	9/11
	5/6	11/13	6/7	7/8	8/9	9/10	10/11	11/12	12/13
	13/14	1/1							
15	0/1	1/15	1/14	1/13	1/12	1/11	1/10	1/9	1/8
	2/15	1/7	2/13	1/6	2/11	1/5	3/14	2/9	3/13
	1/4	4/15	3/11	2/7	3/10	4/13	1/3	5/14	4/11
	3/8	5/13	2/5	5/12	3/7	4/9	5/11	6/13	7/15
	1/2	8/15	7/13	6/11	5/9	4/7	7/12	3/5	8/13
	5/8	7/11	9/14	2/3	9/13	7/10	5/7	8/11	11/15
	3/4	10/13	7/9	11/14	4/5	9/11	5/6	11/13	6/7
	13/15	7/8	8/9	9/10	10/11	11/12	12/13	13/14	14/15
	1/1								
16	0/1	1/16	1/15	1/14	1/13	1/12	1/11	1/10	1/9
	1/8	2/15	1/7	2/13	1/6	2/11	3/16	1/5	3/14
	2/9	3/13	1/4	4/15	3/11	2/7	3/10	4/13	5/16
	1/3	5/14	4/11	3/8	5/13	2/5	5/12	3/7	7/16
	4/9	5/11	6/13	7/15	1/2	8/15	7/13	6/11	5/9
	9/16	4/7	7/12	3/5	8/13	5/8	7/11	9/14	2/3
	11/16	9/13	7/10	5/7	8/11	11/15	3/4	10/13	7/9
	11/14	4/5	13/16	9/11	5/6	11/13	6/7	13/15	7/8
	8/9	9/10	10/11	11/12	12/13	13/14	14/15	15/16	1/1
17	0/1	1/17	1/16	1/15	1/14	1/13	1/12	1/11	1/10
	1/9	2/17	1/8	2/15	1/7	2/13	1/6	3/17	2/11
	3/16	1/5	3/14	2/9	3/13	4/17	1/4	4/15	3/11
	2/7	5/17	3/10	4/13	5/16	1/3	6/17	5/14	4/11
	3/8	5/13	2/5	7/17	5/12	3/7	7/16	4/9	5/11
	6/13	7/15	8/17	1/2	9/17	8/15	7/13	6/11	5/9
	9/16	4/7	7/12	10/17	3/5	8/13	5/8	7/11	9/14
	11/17	2/3	11/16	9/13	7/10	12/17	5/7	8/11	11/15
	3/4	13/17	10/13	7/9	11/14	4/5	13/16	9/11	14/17
	5/6	11/13	6/7	13/15	7/8	15/17	8/9	9/10	10/11
	11/12	12/13	13/14	14/15	15/16	16/17	1/1		

18	0/1	1/18	1/17	1/16	1/15	1/14	1/13	1/12	1/11
	1/10	1/9	2/17	1/8	2/15	1/7	2/13	1/6	3/17
	2/11	3/16	1/5	3/14	2/9	3/13	4/17	1/4	4/15
	3/11	5/18	2/7	5/17	3/10	4/13	5/16	1/3	6/17
	5/14	4/11	3/8	5/13	7/18	2/5	7/17	5/12	3/7
	7/16	4/9	5/11	6/13	7/15	8/17	1/2	9/17	8/15
	7/13	6/11	5/9	9/16	4/7	7/12	10/17	3/5	11/18
	8/13	5/8	7/11	9/14	11/17	2/3	11/16	9/13	7/10
	12/17	5/7	13/18	8/11	11/15	3/4	13/17	10/13	7/9
	11/14	4/5	13/16	9/11	14/17	5/6	11/13	6/7	13/15
	7/8	15/17	8/9	9/10	10/11	11/12	12/13	13/14	14/15
	15/16	16/17	17/18	1/1					
19	0/1	1/19	1/18	1/17	1/16	1/15	1/14	1/13	1/12
	1/11	1/10	2/19	1/9	2/17	1/8	2/15	1/7	2/13
	3/19	1/6	3/17	2/11	3/16	1/5	4/19	3/14	2/9
	3/13	4/17	1/4	5/19	4/15	3/11	5/18	2/7	5/17
	3/10	4/13	5/16	6/19	1/3	6/17	5/14	4/11	7/19
	3/8	5/13	7/18	2/5	7/17	5/12	8/19	3/7	7/16
	4/9	5/11	6/13	7/15	8/17	9/19	1/2	10/19	9/17
	8/15	7/13	6/11	5/9	9/16	4/7	11/19	7/12	10/17
	3/5	11/18	8/13	5/8	12/19	7/11	9/14	11/17	2/3
	13/19	11/16	9/13	7/10	12/17	5/7	13/18	8/11	11/15
	14/19	3/4	13/17	10/13	7/9	11/14	15/19	4/5	13/16
	9/11	14/17	5/6	16/19	11/13	6/7	13/15	7/8	15/17
	8/9	17/19	9/10	10/11	11/12	12/13	13/14	14/15	15/16
	16/17	17/18	18/19	1/1					
20	0/1	1/20	1/19	1/18	1/17	1/16	1/15	1/14	1/13
	1/12	1/11	1/10	2/19	1/9	2/17	1/8	2/15	1/7
	3/20	2/13	3/19	1/6	3/17	2/11	3/16	1/5	4/19
	3/14	2/9	3/13	4/17	1/4	5/19	4/15	3/11	5/18
	2/7	5/17	3/10	4/13	5/16	6/19	1/3	7/20	6/17
	5/14	4/11	7/19	3/8	5/13	7/18	2/5	7/17	5/12
	8/19	3/7	7/16	4/9	9/20	5/11	6/13	7/15	8/17
	9/19	1/2	10/19	9/17	8/15	7/13	6/11	11/20	5/9
	9/16	4/7	11/19	7/12	10/17	3/5	11/18	8/13	5/8
	12/19	7/11	9/14	11/17	13/20	2/3	13/19	11/16	9/13
	7/10	12/17	5/7	13/18	8/11	11/15	14/19	3/4	13/17
	10/13	7/9	11/14	15/19	4/5	13/16	9/11	14/17	5/6
	16/19	11/13	17/20	6/7	13/15	7/8	15/17	8/9	17/19
	9/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
	18/19	19/20	1/1						

21	0/1	1/21	1/20	1/19	1/18	1/17	1/16	1/15	1/14
	1/13	1/12	1/11	2/21	1/10	2/19	1/9	2/17	1/8
	2/15	1/7	3/20	2/13	3/19	1/6	3/17	2/11	3/16
	4/21	1/5	4/19	3/14	2/9	3/13	4/17	5/21	1/4
	5/19	4/15	3/11	5/18	2/7	5/17	3/10	4/13	5/16
	6/19	1/3	7/20	6/17	5/14	4/11	7/19	3/8	8/21
	5/13	7/18	2/5	7/17	5/12	8/19	3/7	7/16	4/9
	9/20	5/11	6/13	7/15	8/17	9/19	10/21	1/2	11/21
	10/19	9/17	8/15	7/13	6/11	11/20	5/9	9/16	4/7
	11/19	7/12	10/17	3/5	11/18	8/13	13/21	5/8	12/19
	7/11	9/14	11/17	13/20	2/3	13/19	11/16	9/13	7/10
	12/17	5/7	13/18	8/11	11/15	14/19	3/4	16/21	13/17
	10/13	7/9	11/14	15/19	4/5	17/21	13/16	9/11	14/17
	5/6	16/19	11/13	17/20	6/7	13/15	7/8	15/17	8/9
	17/19	9/10	19/21	10/11	11/12	12/13	13/14	14/15	15/16
	16/17	17/18	18/19	19/20	20/21	1/1			
22	0/1	1/22	1/21	1/20	1/19	1/18	1/17	1/16	1/15
	1/14	1/13	1/12	1/11	2/21	1/10	2/19	1/9	2/17
	1/8	2/15	3/22	1/7	3/20	2/13	3/19	1/6	3/17
	2/11	3/16	4/21	1/5	4/19	3/14	2/9	5/22	3/13
	4/17	5/21	1/4	5/19	4/15	3/11	5/18	2/7	5/17
	3/10	4/13	5/16	6/19	7/22	1/3	7/20	6/17	5/14
	4/11	7/19	3/8	8/21	5/13	7/18	2/5	9/22	7/17
	5/12	8/19	3/7	7/16	4/9	9/20	5/11	6/13	7/15
	8/17	9/19	10/21	1/2	11/21	10/19	9/17	8/15	7/13
	6/11	11/20	5/9	9/16	4/7	11/19	7/12	10/17	13/22
	3/5	11/18	8/13	13/21	5/8	12/19	7/11	9/14	11/17
	13/20	2/3	15/22	13/19	11/16	9/13	7/10	12/17	5/7
	13/18	8/11	11/15	14/19	3/4	16/21	13/17	10/13	17/22
	7/9	11/14	15/19	4/5	17/21	13/16	9/11	14/17	5/6
	16/19	11/13	17/20	6/7	19/22	13/15	7/8	15/17	8/9
	17/19	9/10	19/21	10/11	11/12	12/13	13/14	14/15	15/16
	16/17	17/18	18/19	19/20	20/21	21/22	1/1		
23	0/1	1/23	1/22	1/21	1/20	1/19	1/18	1/17	1/16
	1/15	1/14	1/13	1/12	2/23	1/11	2/21	1/10	2/19
	1/9	2/17	1/8	3/23	2/15	3/22	1/7	3/20	2/13
	3/19	1/6	4/23	3/17	2/11	3/16	4/21	1/5	4/19
	3/14	5/23	2/9	5/22	3/13	4/17	5/21	1/4	6/23
	5/19	4/15	3/11	5/18	2/7	5/17	3/10	7/23	4/13
	5/16	6/19	7/22	1/3	8/23	7/20	6/17	5/14	4/11
	7/19	3/8	8/21	5/13	7/18	9/23	2/5	9/22	7/17
	5/12	8/19	3/7	10/23	7/16	4/9	9/20	5/11	6/13
	7/15	8/17	9/19	10/21	11/23	1/2	12/23	11/21	10/19
	9/17	8/15	7/13	6/11	11/20	5/9	9/16	13/23	4/7
	11/19	7/12	10/17	13/22	3/5	14/23	11/18	8/13	13/21
	5/8	12/19	7/11	9/14	11/17	13/20	15/23	2/3	15/22
	13/19	11/16	9/13	16/23	7/10	12/17	5/7	13/18	8/11
	11/15	14/19	17/23	3/4	16/21	13/17	10/13	17/22	7/9
	18/23	11/14	15/19	4/5	17/21	13/16	9/11	14/17	19/23
	5/6	16/19	11/13	17/20	6/7	19/22	13/15	20/23	7/8
	15/17	8/9	17/19	9/10	19/21	10/11	21/23	11/12	12/13
	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
	22/23	1/1							

24	0/1	1/24	1/23	1/22	1/21	1/20	1/19	1/18	1/17
	1/16	1/15	1/14	1/13	1/12	2/23	1/11	2/21	1/10
	2/19	1/9	2/17	1/8	3/23	2/15	3/22	1/7	3/20
	2/13	3/19	1/6	4/23	3/17	2/11	3/16	4/21	1/5
	5/24	4/19	3/14	5/23	2/9	5/22	3/13	4/17	5/21
	1/4	6/23	5/19	4/15	3/11	5/18	2/7	7/24	5/17
	3/10	7/23	4/13	5/16	6/19	7/22	1/3	8/23	7/20
	6/17	5/14	4/11	7/19	3/8	8/21	5/13	7/18	9/23
	2/5	9/22	7/17	5/12	8/19	3/7	10/23	7/16	4/9
	9/20	5/11	11/24	6/13	7/15	8/17	9/19	10/21	11/23
	1/2	12/23	11/21	10/19	9/17	8/15	7/13	13/24	6/11
	11/20	5/9	9/16	13/23	4/7	11/19	7/12	10/17	13/22
	3/5	14/23	11/18	8/13	13/21	5/8	12/19	7/11	9/14
	11/17	13/20	15/23	2/3	15/22	13/19	11/16	9/13	16/23
	7/10	12/17	17/24	5/7	13/18	8/11	11/15	14/19	17/23
	3/4	16/21	13/17	10/13	17/22	7/9	18/23	11/14	15/19
	19/24	4/5	17/21	13/16	9/11	14/17	19/23	5/6	16/19
	11/13	17/20	6/7	19/22	13/15	20/23	7/8	15/17	8/9
	17/19	9/10	19/21	10/11	21/23	11/12	12/13	13/14	14/15
	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
	1/1								

25	0/1	1/25	1/24	1/23	1/22	1/21	1/20	1/19	1/18
	1/17	1/16	1/15	1/14	1/13	2/25	1/12	2/23	1/11
	2/21	1/10	2/19	1/9	2/17	3/25	1/8	3/23	2/15
	3/22	1/7	3/20	2/13	3/19	4/25	1/6	4/23	3/17
	2/11	3/16	4/21	1/5	5/24	4/19	3/14	5/23	2/9
	5/22	3/13	4/17	5/21	6/25	1/4	6/23	5/19	4/15
	3/11	5/18	7/25	2/7	7/24	5/17	3/10	7/23	4/13
	5/16	6/19	7/22	8/25	1/3	8/23	7/20	6/17	5/14
	9/25	4/11	7/19	3/8	8/21	5/13	7/18	9/23	2/5
	9/22	7/17	5/12	8/19	3/7	10/23	7/16	11/25	4/9
	9/20	5/11	11/24	6/13	7/15	8/17	9/19	10/21	11/23
	12/25	1/2	13/25	12/23	11/21	10/19	9/17	8/15	7/13
	13/24	6/11	11/20	5/9	14/25	9/16	13/23	4/7	11/19
	7/12	10/17	13/22	3/5	14/23	11/18	8/13	13/21	5/8
	12/19	7/11	16/25	9/14	11/17	13/20	15/23	2/3	17/25
	15/22	13/19	11/16	9/13	16/23	7/10	12/17	17/24	5/7
	18/25	13/18	8/11	11/15	14/19	17/23	3/4	19/25	16/21
	13/17	10/13	17/22	7/9	18/23	11/14	15/19	19/24	4/5
	17/21	13/16	9/11	14/17	19/23	5/6	21/25	16/19	11/13
	17/20	6/7	19/22	13/15	20/23	7/8	22/25	15/17	8/9
	17/19	9/10	19/21	10/11	21/23	11/12	23/25	12/13	13/14
	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
	23/24	24/25	1/1						

EULER'S CONSTANT

Euler's constant is defined to be:

$$\gamma = \lim_{n \to \infty} (1 + 1/2 + \ldots + 1/n - \ln n)$$

VALUE OF EULER'S CONSTANT

.57721 56649 01532 86060 65120 90082 40243 10421 59335 93992
35988 05767 23488 48677 26777 66467 09369 47063 29174 67495
14631 44724 98070 82480 96050 40144 86542 83622 41739 97644
92353 62535 00333 74293 73377 37673 94279 25952 58247 09491
60087 35203 94816 56708 53233 15177 66115 28621 19950 15079
84793 74508 57057 40029 92135 47861 46694 02960 43254 21519
05877 55352 67331 39925 40129 67420 51375 41395 49111 68510
28079 84234 87758 72050 38431 09399 73613 72553 06088 93312
67600 17247 95378 36759 27135 15772 26102 73492 91394 07984
30103 41777 17780 88154 95706 61075 01016 19166 33401 52278
93586 79654 97252 03621 28792 26555 95366 96281 76388 79272
68013 24310 10476 50596 37039 47394 95763 89065 72967 92960
10090 15125 19595 09222 43501 40934 98712 28247 94974 71956
46976 31850 66761 29063 81105 18241 97444 86783 63808 61749
45516 98927 92301 87739 10729 45781 55431 60050 02182 84409
60537 72434 20328 54783 67015 17739 43987 00302 37033 95183
28690 00155 81939 88042 70741 15422 27819 71652 30110 73565
83396 73487 17650 49194 18123 00040 65469 31429 99297 77956
93031 00503 08630 34185 69803 23108 36916 40025 89297 08909
85486 82577 73642 88253 95492 58736 29596 13329 85747 39302
37343 88470 70370 28441 29201 66417 85024 87333 79080 56275
49984 34590 76164 31671 03146 71072 23700 21810 74504 44186
64759 13480 36690 25532 45862 54422 25345 18138 79124 34573
50136 12977 82278 28814 89459 09863 84600 62931 69471 88714
95875 25492 36649 35204 73243 64109 72682 76160 87759 50880
95126 20840 45444 77992 3(0)

LARGE PRIMES

Primes	Digits	Primes	Digits
$2^{19937}-1$	6002	$19*2^{923}-1$	280
$2^{11213}-1$	3376	$139*2^{917}-1$	279
$2^{9941}-1$	2993	$91*2^{917}-1$	279
$2^{9689}-1$	2917	$59*2^{916}-1$	278
$2^{4423}-1$	1332	$69*2^{909}-1$	276
$2^{4253}-1$	1281	$35*2^{906}-1$	275
$2^{3217}-1$	969	$125*2^{904}-1$	275
$2^{2281}-1$	687	$83*2^{904}-1$	275
$2^{2203}-1$	664	$45*2^{902}-1$	274
$5*2^{1947}+1$	587	$61*2^{895}-1$	272
$2^{1279}-1$	386	$105*2^{896}-1$	272
$131*2^{974}-1$	296	$27*2^{892}-1$	270
$65*2^{972}-1$	295	$21*2^{891}-1$	270
$17*2^{972}-1$	294	$23*2^{888}-1$	269
$75*2^{969}-1$	294	$31*2^{887}-1$	269
$27*2^{962}-1$	292	$51*2^{885}-1$	269
$93*2^{954}-1$	290	$145*2^{883}-1$	268
$19*2^{953}-1$	289	$85*2^{883}-1$	268
$11*2^{950}-1$	288	$87*2^{881}-1$	268
$45*2^{946}-1$	287	$91*2^{869}-1$	264
$81*2^{941}-1$	286	$9*2^{871}-1$	264
$107*2^{940}-1$	285	$91*2^{867}-1$	263
$9*2^{939}-1$	284	$107*2^{858}-1$	261
$65*2^{930}-1$	282	$53*2^{846}-1$	257
$45*2^{928}-1$	282	$139*2^{841}-1$	256

PRIMES IN ARITHMETIC PROGRESSION

THREE PRIMES

3	5	7
269	2579	4889
11	3581	7151

FOUR PRIMES

7	19	31	43
17	29	41	53
79	103	127	151

FIVE PRIMES

5	11	17	23	29
23	233	443	653	863
1933	4243	6553	8863	11173

SIX PRIMES

7	37	67	97	127	157
107	137	167	197	227	257
1361	3671	5981	8291	10601	12911

SEVEN PRIMES

7	157	307	457	607	757	907
179	389	599	809	1019	1229	1439
5573	7883	10193	12503	14813	17123	19433

EIGHT PRIMES

335729	816209	1296689	1777169	2257649	2738129	3218609	3699089
267401	777911	1288421	1798931	2309441	2819951	3330461	3840971
1019	3329	5639	7949	10259	12569	14879	17189

NINE PRIMES

3499	3709	3919	4129	4339	4549	4759	4969	5179
10859	11069	11279	11489	11699	11909	12119	12329	12539
61637	62057	62477	62897	63317	63737	64157	64577	64997

TEN PRIMES

199	409	619	829	1039	1249	1459	1669	1879	2089
52879	53299	53719	54139	54559	54979	55399	55819	56239	56659
34913	37013	39113	41213	43313	45413	47513	49613	51713	53813

ELEVEN PRIMES

3617	213827	424037	634247	844457	1054667	1264877
1475087	1685297	1895507	2105717			
249517	1270537	2291557	3312577	4333597	5354617	6375637
7396657	8417677	9438697	10459717			
2596889	2927219	3257549	3587879	3918209	4248539	4578869
4909199	5239529	5569859	5900189			

PRIMES IN ARITHMETIC PROGRESSION

TWELVE PRIMES

166601 178151 189701 201251 212801 224351 235901
247451 259001 270551 282101 293651

152947 166807 180667 194527 208387 222247 236107
249967 263827 277687 291547 305407

110437 124297 138157 152017 165877 179737 193597
207457 221317 235177 249037 262897

THIRTEEN PRIMES

766439 1276949 1787459 2297969 2808479 3318989 3829499
4340009 4850519 5361029 5871539 6382049 6892559

4943 65003 125063 185123 245183 305243 365303
425363 485423 545483 605543 665603 725663

SIXTEEN PRIMES

2236133941 2459226811 2682319681 2905412551 3128505421
3351598291 3574691161 3797784031 4020876901 4243969771
4467062641 4690155511 4913248381 5136341251 5359434121
5582526991