

ANOVA Example 1: Small Within-Group Variation

	g1	g2	g3
[1,]	10.340173	13.99102	10.94284
[2,]	9.778041	14.15716	11.04797
[3,]	10.027254	13.79318	10.98648
[4,]	10.076422	14.01022	11.23065
[5,]	9.705939	14.08527	11.16501
[6,]	10.127107	13.95236	11.08837
[7,]	10.034196	13.99578	10.98095
[8,]	10.060979	14.19568	10.69569
[9,]	9.982264	13.94783	10.89451
[10,]	10.198267	14.00000	11.06150
[11,]	10.086942	14.12088	10.98230
[12,]	9.891494	14.36301	10.77166
[13,]	10.260192	13.83177	11.27444
[14,]	10.225046	14.14089	11.41609
[15,]	9.821262	14.00648	10.98301

Grand mean = 11.70508

Group Means:

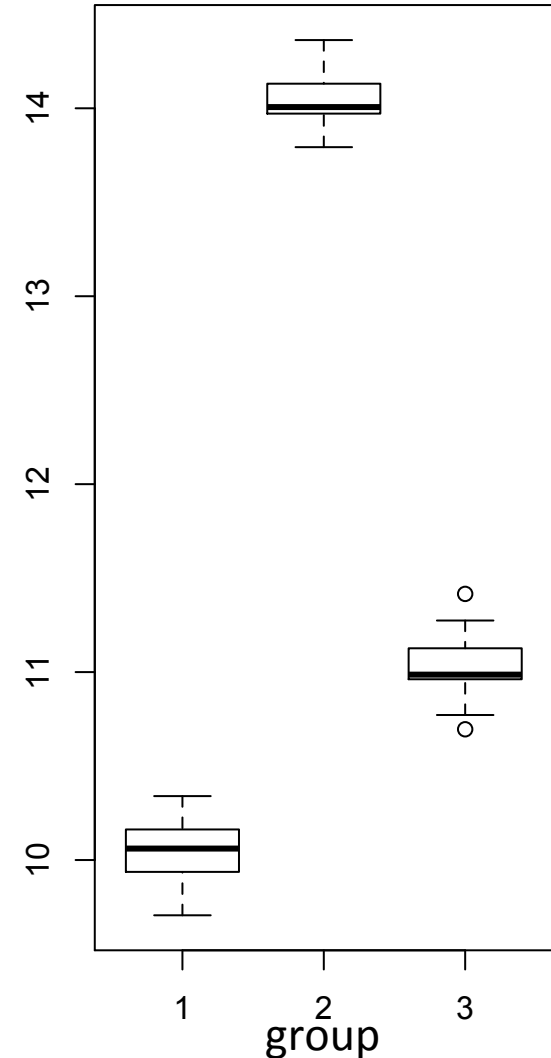
g1	g2	g3
10.04104	14.03943	11.03476

Group Std Devs:

g1	g2	g3
0.1818692	0.1437955	0.1861111

(Partial) ANOVA TABLE:

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Treatment	2	130.014	65.007	2206.3	< 2.2e-16 ***
Error	42	1.237	0.029		



ANOVA Example 2: Moderate Within-Group Variation

```
      g1      g2      g3
[1,] 15.139565 14.20225 11.024379
[2,]  9.999992 10.99388 10.277134
[3,] 12.260916 14.52697  7.963875
[4,] 10.568679 11.65960 10.921417
[5,]  8.977768 15.54059 12.171680
[6,] 12.231124 15.51628 12.706338
[7,] 11.881976 14.25582  8.987067
[8,] 11.981539 16.49817 11.838697
[9,] 12.006121 13.81726  7.639619
[10,] 10.012211 10.77789 12.502151
[11,]  8.807039 13.02602  9.970291
[12,] 10.986737 10.79759 12.099837
[13,] 13.506378 13.43298 13.573101
[14,] 10.839153 15.09704  9.065417
[15,] 14.789449 16.40698 10.920726
```

>

Grand mean = 12.04888

Group means:

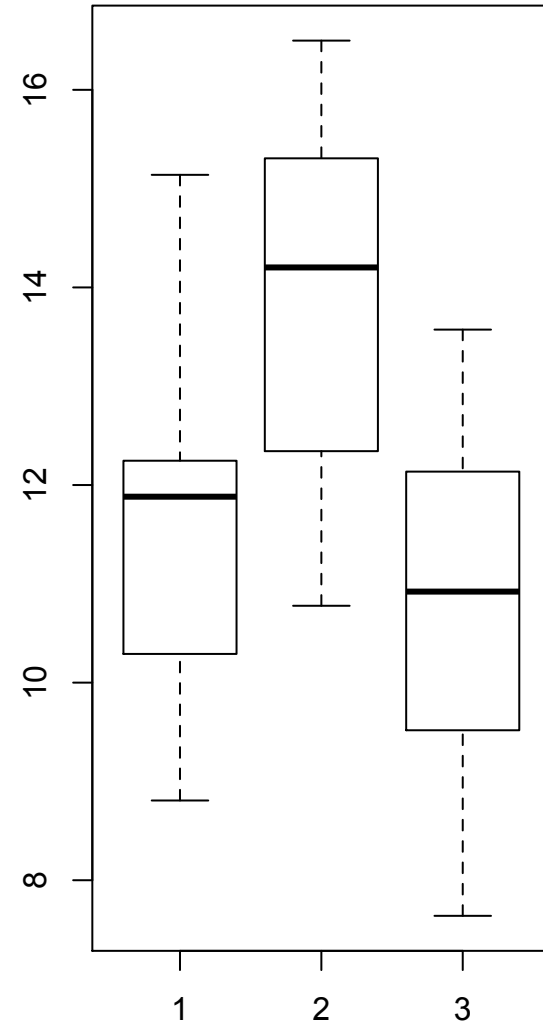
```
      g1      g2      g3
11.59924 13.76996 10.77745
```

Group Std Dev:

```
      g1      g2      g3
1.877250 1.963158 1.777487
```

(Partial) ANOVA TABLE:

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
Treatment	2	71.712	35.856	10.208	0.0002438	***
Error	42	147.525	3.513			



ANOVA Example 3: Large Within-Group Variation

```

      g1      g2      g3
[1,] 19.001339 14.0871940  5.735150
[2,]  3.926761 14.3407629  9.837590
[3,]  8.173728 20.0647655 12.920301
[4,] 15.812720 12.2716480 10.090533
[5,] 16.254393 17.7612292 16.626115
[6,]  9.041942 11.7056447  2.818570
[7,]  9.546294 -0.1728914  7.303642
[8,]  5.524451 22.6521990 10.092017
[9,]  6.758575 19.0361975 11.790582
[10,] 7.811132  4.8960044  4.079051
[11,] 8.688721 13.6706744 -1.457292
[12,] 18.056606 10.1350193 10.551160
[13,] 16.853404 13.1889389 10.316537
[14,]  9.257074 11.9088210 19.799338
[15,]  8.061542  6.6642303 10.411811
>

```

Grand mean = 11.01987

Group means:

```

      g1      g2      g3
10.85125 12.81403  9.39434

```

Group Std Dev:

```

      g1      g2      g3
4.910912 5.952632 5.278937

```

(Partial) ANOVA TABLE:

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Treatment	2	88.35	44.173	1.5159	0.2314
Error	42	1223.85	29.139		

