(26)

1.	0		1		2		4							
2.		1		1		2		4						
3.			0		1		2		3					
4.				1		1		1		3				
5.					0		0		2		2			
6.						0		2		0		2		
7.							2		2		2		2	
8.								0		0		0		0

Using (21), (24) and (25) we have constructed the following table.

Table

m	n	4 Starting Tribonacci Numbers
6	1	0, 1, 2, 3
7	1	1, 1, 2, 4
8	1	0, 1, 2, 4
9	2	2, 3, 6, 11
10	2	2, 4, 7, 13
11	2	0, 2, 6, 13
12	3	6, 11, 20, 37
13	3	7, 13, 24, 44
14	3	0, 7, 20, 44

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[Continued from page 116.]

where

$$q = [k/2], \quad r = k, \bmod 2, \quad 1 \leqslant j \leqslant k,$$
$$P_i(x) = (\tfrac{1}{2})\ln[x^2 - 2x\cos((2i+1)\pi/k) + 1],$$
$$Q_i(x) = \arctan[(x - \cos((2i+1)\pi/k)/\sin((2i+1)\pi/k)] .$$

Proof. The G function has the series and integral representation [4, p. 20]

$$G(z) = 2\sum_{n=0}^{\infty} (-1)^n/(z+n) = 2\int_0^1 x^{z-1}dx/(1+x)$$

from which the first part of (2) is immediate. The integration formula is recorded in [5, p. 20].

Lemma 2.

(3) $$\omega(j;k_1,k_2) = (1/S)[\psi((j+k_1)/S) - \psi(j/S)],$$

where the psi (digamma) function is the logarithmic derivative of the gamma function and has integral representation for rational argument u/v, $0 < u < v$,

(4) $$\psi(u/v) = -C + v\int_0^1 (x^{v-1} - x^{u-1})dx/(1-x^v)$$
$$= -C - \ln v - (\pi/2)\cot(u\pi/v)$$
$$+ \sum_{i=1}^{q} \cos(2ui\pi/v)\ln(4\sin^2 i\pi/v) + (-1)^u\delta_0^r \ln 2 ,$$

where $q = [(v-1)/2]$, $r = u/2 - [u/2]$, C is Euler's constant.

[Continued on page 149.]