Proof. This follows from the Theorem with $\mu = 1 + 1/\sigma$, $\lambda = \sigma + 1$, and $b = c = 1$. Q.E.D.
(Corollary 3 is part of Problem 22 in [3, p. 84].)

REFERENCES

1. H. S. M. Coxeter, "The Golden Section, Phyllotaxis, and Wythoff's Game," *Scripta Mathematica* 19 (1953), pp. 135–143.
2. G. H. Hardy and E. M. Wright, *An Introduction to the Theory of Numbers,* 4th Ed., Oxford, 1960.
3. I. Niven and H. Zuckerman, *An Introduction to the Theory of Numbers,* 3rd ed., Wiley, N. Y., 1972.

****

[Continued from page 149.]

For an ω-series with an arbitrary odd number of k_i parameters two cycles of parametric incrementation are required to bring the series into alignment for grouping. Use of the identity

$$G(z) = \psi(z/2 + 1/2) - \psi(z/2),$$

[4, p. 20], and Lemma 1 render the following summation expression.

Theorem 2.

$$\omega(j; k_1, \cdots, k_{2n+1}) = \sum_{i=0}^{2n} (-1)^i \omega(j + s_i; S) = (1/2S) \sum_{i=0}^{2n} (-1)^i G((j + s_i)/S).$$

3. EXAMPLES

Some calculations for the uniparameter ω-series are to be found in [1] and for the biparameter series in [2]. The above theorems and their proofs can be illustrated with the following triparameter ω-series:

$$\begin{aligned}
\omega(1; 1, 1, 2) &= [(1 - 1/2) + (1/3 - 1/5) + (1/6 - 1/7)] + [(1/9 - 1/10) + (1/11 - 1/13) + \cdots] \\
&\qquad + [(1/17 - 1/18) + \cdots] + \cdots \\
&= (1 - 1/2) + (1/9 - 1/10) + (1/17 - 1/18) + \cdots + (1/3 - 1/5) + (1/11 - 1/13) + \cdots \\
&\qquad + (1/6 - 1/7) + \cdots \\
&= \omega(1; 1, 7) + \omega(3; 2, 6) + \omega(6; 1, 7) \\
&= (1/8)[G(3/4) - G(1/2) + G(1/4)] \\
&= (1/8)[\sqrt{2}(\pi - 2 1n(1 + \sqrt{2}) - \pi + \sqrt{2}(\pi + 2 1n(1 + \sqrt{2}))] \\
&= (\pi/8)[2\sqrt{2} - 1].
\end{aligned}$$

REFERENCES

1. B. J. Cerimele, "Extensions on a Theme Concerning Conditionally Convergent Series," *Mathematics Mag.,* Vol. 40, No. 3, May, 1967.
2. B. J. Cerimele, "Summation of Generalized Harmonic Seires with Periodic Sign Distributions," *Pi Mu Epsilon Journal,* Vol. 4, No. 8, Spring, 1968.
3. H. T. Davis, "Tables of Higher Mathematical Functions," The Principia Press, 1933.
4. A. Erdelyi (ed), *Higher Transcendental Functions,* Vol. 1, McGraw Hill, 1953.
5. W. Grobner and N. Hofreiter, *Integraltafel,* Vol. 1, Springer-Verlag, 1961.
6. J. B. W. Jolly, *Summation of Series,* Dover Publications, 1961.

****