

4. Another special case of (1.7) that is of some interest is obtained by taking all $u_j = 0$ except u_{p-1} and u_{q-1} . We evidently get

$$(4.1) \quad \sum_{r,s=0}^{\infty} \binom{k+pr+qs}{r+s} \binom{r+s}{r} \frac{u^r v^s}{(1+u+v)^{pr+qs}} = \frac{(1+u+v)^{k+1}}{1-(p-1)u-(q-1)v} \quad (q \neq p).$$

As above, we can assert that (4.1) holds for all k, p, q . This can evidently be extended in an obvious way, thus furnishing extensions of (2.3) involving an arbitrary number of parameters.

We remark that (4.1) is equivalent to

$$(4.2) \quad \sum_{\substack{r+i=m \\ s+j=n}} (-1)^{i+j} \binom{k+pr+qs}{r+s} \binom{k+pr+qs+i+j}{i+j} \binom{r+s}{r} \binom{i+j}{i} \\ = \binom{m+n}{m} (p-1)^m (q-1)^n,$$

which is itself a special case of (3.1).

REFERENCE

1. G. Pólya and G. Szegő, Aufgaben und Lehrsätze aus der Analysis, 1, Berlin, 1925.

◆◆◆◆◆ LETTER TO THE EDITOR

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In the note by W. R. Spickerman, "A Note on Fibonacci Functions," *Fibonacci Quarterly*, October, 1970, pp. 397-401, his Theorem 1, p. 397, states that if $f(x)$ is a Fibonacci function, i. e. ,

$$(1) \quad f(x+2) = f(x+1) + f(x),$$

then $\int f(x)dx$ is also a Fibonacci function. Since $\int f(x)dx = h(x) + C$, where C is the arbitrary constant of integration, the above result assumes that $C = 0$. Thus, a formulation of this result in terms of a definite integral seems apropos.

[Continued on page 40.]