quantities less than half of m + 1 and relatively prime to it. But the number of such quantities is $\frac{1}{2}\phi(m+1)$. Thus it follows that if the formula is true for m, it is true for m + 1 and the theorem is proved in general.

REFERENCE

1. Brother U. Alfred, "On the Ordering of Fibonacci Sequences," Fibonacci Quarterly, Dec. 1963, pp. 43-46.

[Continued from page 597.]

That is, we have shown that

$$C_k(x) = A_k(x) \cdot (1-x)^{-\frac{1}{2}k(k+1)-1} , \tag{4.8}$$

where $A_k(x)$ is a polynomial in x of degree $\frac{1}{2}k(k-1)$ given by either of

$$A_k(x) = \sum_{j=k}^{\frac{1}{2}k(k+1)} a_{kj}(1-x)^{\frac{1}{2}k(k+1)-j} \tag{4.9}$$

or

$$A_k(x) = \sum_{j=k}^{\frac{1}{2}k(k+1)} a_{kj}\, x^{j-k}(x-1)^{\frac{1}{2}k(k+1)-j} . \tag{4.10}$$

Notice that the symmetry property (1.9) follows by comparing (4.9) and (4.10). The first few values of $A_k(x)$ are $A_1(x) = 1$, $A_2(x) = 1 + x$, $A_3(x) = 1 + 7x + 7x^2 + x^3$.

REFERENCES

1. L. Carlitz and John Riordan, "Enumeration of Certain Two-Line Arrays," Duke Math. J., Vol. 32 (1965), pp. 529-539.
2. L. Carlitz and R. A. Scoville, Problem E2054, MAA Monthly, Vol. 75 (1968), p. 77.
3. P. A. MacMahon, Combinatory Analysis, Vol. 1, Cambridge, 1915.

[Continued from page 598.]

(3) Articles of standard size for which additional background material may be obtained.

Articles in the Quarterly for which this note service is available will indicate the fact, together with the number of pages in question. Requests for these notes should be made to

Brother Alfred Brousseau
St. Mary's College
Moraga, California 94574

The notes will be Xeroxed.

The price for this service is four cents a page (including postage, materials and labor).