($m = 0, 1, 2, \cdots, n$), where $F_{-2} = F_{-1} = 0$ and F_j for each $j \geq 0$ is the j^{th} Fibonacci number (2).

The results in Theorem 2 were suggested to the authors by considering a number of special cases on an IBM 360/65 computer.

REFERENCES

1. R. L. Duncan, "Note on the Euclidean Algorithm," The Fibonacci Quarterly, Vol. 4 (1966), pp. 367-368.
2. O. Perron, Die Lehre von den Kettenbruchen, Vol. 1, Teubner, Stuttgart, 1954.
3. J. V. Uspensky and M. A. Heaslet, Elementary Number Theory, McGraw-Hill, 1939.

LETTERS TO THE EDITOR

Dear Editor:

In the paper (*) by W. A. Al-Salam and A. Verma, "Fibonacci Numbers and Eulerian Polynomials," Fibonacci Quarterly, February 1971, pp. 18-22, an error occurs in (9), which is readily corrected. I will generalize their (4) by defining a general polynomial operator M by

$$\text{(I)} \qquad Mf(x) = Af(x + c_1) + Bf(x + c_2), \qquad c_1 \neq c_2 ,$$

where $f(x)$ is a polynomial and A, B, c_1, and c_2 are given numbers. With $D = d/dx$, we note that $M = Ae^{c_1D} + Be^{c_2D}$ so that

$$Mf(x) = A\sum_{n=0}^{\infty} \frac{c_1^n}{n!} D^nf(x) + B\sum_{n=0}^{\infty} \frac{c_2^n}{n!} D^nf(x) ,$$

or

$$\text{(II)} \qquad Af(x + c_1) + Bf(x + c_2) = \sum_{n=0}^{\infty} \frac{W_n}{n!} D^nf(x) ,$$

where $W_n = Ac_1^n + Bc_2^n$ is the solution of $W_{n+2} = PW_{n+1} - QW_n$ and $c_1 \neq c_2$ are the roots of $x^2 = Px - Q$. In (*), Eq. (4) is a special case of (I) with $A = \mu$ and $B = 1 - \mu$. There are two cases of (II) to consider:

Case 1. $A + B \neq 0$. If $A = B$, we obtain from (II)

$$\text{(III)} \qquad f(x + c_1) + f(x + c_2) = \sum_{n=0}^{\infty} \frac{V_n}{n!} D^nf(x) ,$$

where $V_0 = 2$, $V_1 = P$, and $V_{n+2} = PV_{n+1} - QV_n$. If c_1 and c_2 are roots of $x^2 = x + 1$,
[Continued on page 71.]