$$\alpha^r = \frac{L_r + dF_r}{2A}, \qquad \beta^r = \frac{L_r - dF_r}{2B}$$

Therefore

$$\frac{1}{2A}(L_{x_1+x_2+\cdots+x_n} + dF_{x_1+x_2+\cdots+x_n})$$

$$= \alpha^{x_1+x_2+\cdots+x_n}$$

$$= \frac{1}{2^n A^n}(L_{x_1} + dF_{x_1})(L_{x_2} + dF_{x_2}) \cdots (L_{x_n} + dF_{x_n})$$

$$= \frac{1}{2^n A^n}(S_0^n + dS_1^n + d^2 S_2^n + \cdots + d^n S_n^n).$$

Similarly

$$\frac{1}{2B}(L_{x_1+x_2+\cdots+x_n} - dF_{x_1+x_2+\cdots+x_n})$$

$$= \frac{1}{2^n B^n}(S_0^n - dS_1^n + d^2 S_2^n - \cdots + (-1)^n d^n S_n^n).$$

The theorem now follows by addition and subtraction.

REFERENCES

1. H.H. Ferns, "Products of Fibonacci and Lucas Numbers," *The Fibonacci Quarterly,* Vol. 7, No. 1 (Feb. 1969), pp. 1–13.
2. A.J.W. Hilton, "On the Partition of Horadam's Generalized Sequences into Generalized Fibonacci and Lucas Sequences," *The Fibonacci Quarterly,* to appear.

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THE FIBONACCI ASSOCIATION

RESEARCH CONFERENCE

PROGRAM OF SATURDAY, MAY 4, 1974

ST. MARY'S COLLEGE

9:00–9:30 PRELIMINARY GATHERING, coffee and rolls.

9:30–10:15 SEQUENCES GENERATED BY LEAST INTEGER FUNCTIONS
Brother Alfred Brousseau, St. Mary's College

10:20–11:00 THE SEQUENCES 1, 5, 16, 45, 121, 320, ⋯ IN COMBINATORICS
Ken Rebman, California State University, Hayward

11:05–11:45 REPRESENTATION OF INTEGERS USING FIBONACCI AND LUCAS SQUARES
Hardy Reyerson, Masters Student, San Jose State University

12:00–1:30 LUNCH PERIOD

1:30–2:15 RECTANGULAR AND TRIANGULAR PARTITIONS
Leonard Carlitz, Duke University

2:20–3:00 GREAT ADVENTURES WITH CATALAN AND LAGRANGE
Verner E. Hoggatt, Jr., San Jose State University

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