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The Coefficients of a Truncated Fibonacci Power Series,
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Abstract

In this note, we give a short proof of the fact that the coefficients of the polynomial

$$A_n(x) = (1 - x)(1 - x^2)(1 - x^3) \cdots (1 - x^{F_n})(1 - x^{F_{n+1}})$$

are all equal to $-1, 0$ or 1 , where F_n is the n th Fibonacci number. This improves the previous result that the coefficients of $\prod_{n \geq 2} (1 - x^{F_n})$ are all equal to $-1, 0$ or 1 .