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*Powers of Two in Generalized Lucas Sequences*,
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**Abstract**

For an integer $k \geq 2$, let $(L_n^{(k)})_n$ be the $k$-generalized Lucas sequence that starts with $0, \ldots, 0, 2, 1$ ($k$ terms) and each term afterwards is the sum of the k preceding terms. In this paper, we find all powers of two that appear in $k$-generalized Lucas sequences; i.e., we study the Diophantine equation $L_n^{(k)} = 2^m$ in positive integers $n, k, m$ with $k \geq 2$.