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Title: On the Diophantine equation $(x+1)^k + (x+2)^k + \cdots + (lx)^k = y^n$

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Let $k, l \geq 2$ be fixed integers. In this paper, firstly, we prove that all solutions of the equation $(x+1)^k + (x+2)^k + \cdots + (lx)^k = y^n$ in integers x, y, n with $x, y \geq 1, n \geq 2$ satisfy $n < C_1$, where $C_1 = C_1(l, k)$ is an effectively computable constant. Secondly, we prove that all solutions of this equation in integers x, y, n with $x, y \geq 1, n \geq 2, k \neq 3$ and $l \equiv 0 \pmod{2}$ satisfy $\max\{x, y, n\} < C_2$, where C_2 is an effectively computable constant depending only on k and l .

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