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Title: On the Diophantine equations $(x-1)^3 + x^5 + (x+1)^3 = y^n$
and $(x-1)^5 + x^3 + (x+1)^5 = y^n$

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In this paper, we prove that the Diophantine equations $(x-1)^3 + x^5 + (x+1)^3 = y^n$ and $(x-1)^5 + x^3 + (x+1)^5 = y^n$ have no integer solutions with $x \neq 0$ and $n > 1$, unless $(x, y, n) = (1, \pm 3, 2)$ for the first equation.

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