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

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

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