

Let $a, b, c, d, e > 0$ be real numbers such that $a^2 + b^2 + c^2 = d^2 + e^2$ and $a^4 + b^4 + c^4 = d^4 + e^4$. Compare the numbers $a^3 + b^3 + c^3$ and $d^3 + e^3$.