

## Answer on Question #52166 – Math – Calculus

### Question

$$\lim_{x \rightarrow 2} (-2x^3 + 32(x^3 - 4x) + 1)$$

### Solution

$$\begin{aligned} \lim_{x \rightarrow 2} (-2x^3 + 32(x^3 - 4x) + 1) &= \lim_{x \rightarrow 2} (-2x^3) + \lim_{x \rightarrow 2} (32(x^3 - 4x)) + \lim_{x \rightarrow 2} (1) = \\ &= -2 \lim_{x \rightarrow 2} (x^3) + 32 \left( \lim_{x \rightarrow 2} (x^3) - \lim_{x \rightarrow 2} (4x) \right) + 1 = -2 \cdot 2^3 + 32(2^3 - 4 \cdot 2) + 1 = \\ &= -15. \end{aligned}$$

**Answer:** -15.