

Order of Operations

1. Perform any operation(s) inside grouping symbols.
2. Simplify any terms with exponents.
3. Multiply and divide in order from left to right.
4. Add and subtract in order from left to right.

Evaluate $(x^2 + 5)^3 - 2(3)$ for $x = 4$.

$$\begin{aligned}(x^2 + 5)^3 - 2(3) &= (4^2 + 5)^3 - 2(3) \\ &= (16 + 5)^3 - 2(3) \\ &= (21)^3 - 2(3) \\ &= 9261 - 2(3) \\ &= 9261 - 6 \\ &= 9255\end{aligned}$$