

Exercise 33

For the following exercises, evaluate the expressions using the given variable.

$$-(2x)^2 + 1 + 3 \text{ for } x = 2$$

Solution

Simplify the given expression before plugging in $x = 2$.

$$\begin{aligned} -(2x)^2 + 1 + 3 &= -(4x^2) + 1 + 3 \\ &= -4x^2 + 4 \\ &= -4(2)^2 + 4 \\ &= -4(4) + 4 \\ &= -16 + 4 \\ &= -12 \end{aligned}$$