

Objective 1 AM: Evaluate functions for given values

1. Let $f(x) = |x| - 2$. Find $f(5)$.

[A] 3

[B] -3

[C] -7

[D] 7

$$\begin{aligned} f(5) &= |5| - 2 \\ &= 5 - 2 \\ &= 3 \end{aligned}$$

2. Find $f(15)$ for $f(x) = \frac{x^2 - 9}{27 - x^3}$.

[A] $\frac{1}{8}$

[B] $\frac{1}{12}$

[C] $-\frac{2}{31}$

[D] none of these

$$f(15) = \frac{(15)^2 - 9}{(27 - (15)^3)} = -\frac{2}{31}$$

↳ use extra parenthesis in calculator

3. If $Q(x) = x^2 + 5x - 6$, find $Q(-3)$.

[A] 18

[B] 0

[C] -12

[D] 12

$$\begin{aligned} Q(-3) &= (-3)^2 + 5(-3) - 6 \\ &= 9 - 15 - 6 \\ &= -12 \end{aligned}$$

4. Let $f(x) = |x| - 4$. Find $f(-5)$.

$$\begin{aligned} f(-5) &= |-5| - 4 \\ &= 5 - 4 \\ &= 1 \end{aligned}$$