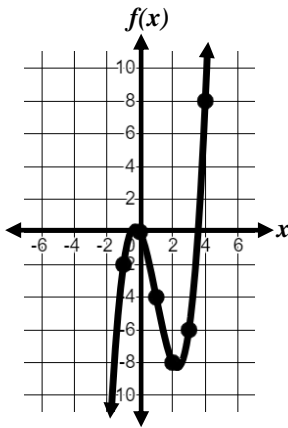


**Learning Target:** I will evaluate linear and non-linear functions.

**Form A**

## 1. We Do Together



Use the graph to find  $f(x)$  for each value of  $x$ .

- When  $x = 2$ ,  $f(x) = \square$
- When  $x = 0$ ,  $f(x) = \square$
- When  $x = -1$ ,  $f(x) = \square$

The graph to the left represents the function  $f(x)$ , where  $f(x) = x^3 - 3x^2 - 2x$ .

d. Find the value of  $f(x)$  when  $x = -2$ .

$$\begin{aligned}
 f(x) &= x^3 - 3x^2 - 2x \\
 f(-2) &= \square^3 + -3 \cdot \square^2 + -2 \cdot \square \\
 &= \square + -3 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

e. Find the value of  $f(x)$  when  $x = -3$ .

$$\begin{aligned}
 f(x) &= x^3 - 3x^2 - 2x \\
 f(-3) &= \square^3 + -3 \cdot \square^2 + -2 \cdot \square \\
 &= \square + -3 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

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

$$\begin{aligned}
 f(\square) &= \square^3 + -3 \cdot \square^2 + -2 \cdot \square \\
 &= \square + -3 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

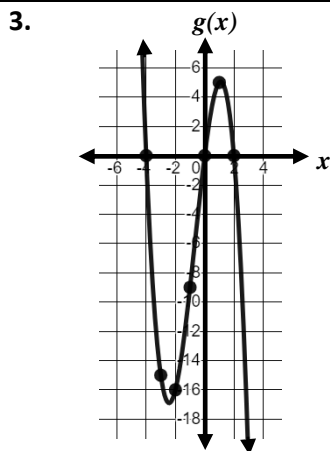
g. Is the point  $(5, 40)$  a solution of the function,  $f(x) = x^3 - 3x^2 - 2x$ ?

$$\begin{aligned}
 f(\square) &= \square^3 + -3 \cdot \square^2 + -2 \cdot \square \\
 &= \square + -3 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

Yes or No?

**2. Reflect:** What questions do you have about evaluating linear and non-linear functions?

## You Do Together



Use the graph above to find the value of  $g(x)$  for each value of  $x$ .

- When  $x = 2$ ,  $g(x) = \square$
- When  $x = -2$ ,  $g(x) = \square$
- When  $x = -1$ ,  $g(x) = \square$

4. For the function  $h(x) = x^2 - 6x + 2$ , find the value of  $h(-3)$ .

5. For the function  $k(x) = 7x - 4$ , find the value of  $k(8)$ .

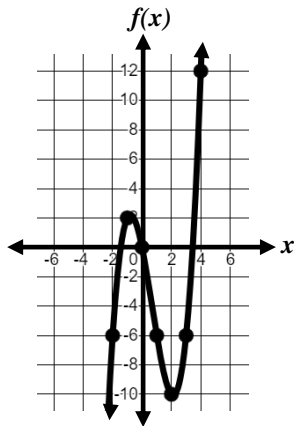
6. Evaluate  $t(x) = x^3 - 3x^2 + 4$  for  $x = -5$ .

7. Is the point  $(3, 5)$  a solution of the function,  $t(x) = x^3 - 3x^2 + 4$ ?

**Learning Target:** I will evaluate linear and non-linear functions.

**Form B**

## 1. We Do Together



Use the graph to find  $f(x)$  for each value of  $x$ .

- a. When  $x = -2$ ,  $f(x) = \square$
- b. When  $x = 0$ ,  $f(x) = \square$
- c. When  $x = 1$ ,  $f(x) = \square$

The graph to the left represents the function  $f(x)$ , where  $f(x) = x^3 - 2x^2 - 5x$ .

d. Find the value of  $f(x)$  when  $x = -3$ .

$$f(x) = x^3 - 2x^2 - 5x$$

$$\begin{aligned} f(-3) &= \square^3 + -2 \cdot \square^2 + -5 \cdot \square \\ &= \square + -2 \cdot \square + \square \\ &= \square + \square + \square \\ &= \square \end{aligned}$$

e. Find the value of  $f(x)$  when  $x = 4$ .

$$f(x) = x^3 - 2x^2 - 5x$$

$$\begin{aligned} f(4) &= \square^3 + -2 \cdot \square^2 + -5 \cdot \square \\ &= \square + -2 \cdot \square + \square \\ &= \square + \square + \square \\ &= \square \end{aligned}$$

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

$$\begin{aligned} f(\square) &= \square^3 + -2 \cdot \square^2 + -5 \cdot \square \\ &= \square + -2 \cdot \square + \square \\ &= \square + \square + \square \\ &= \square \end{aligned}$$

g. Is the point  $(3, -10)$  a solution of the function,  $f(x) = x^3 - 2x^2 - 5x$ ?

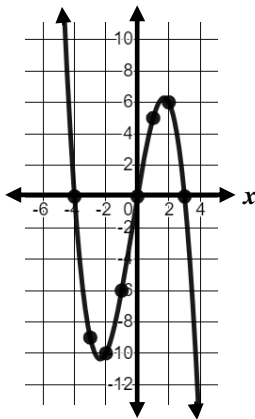
$$\begin{aligned} f(\square) &= \square^3 + -2 \cdot \square^2 + -5 \cdot \square \\ &= \square + -2 \cdot \square + \square \\ &= \square + \square + \square \\ &= \square \end{aligned}$$

Yes or No?

**2. Reflect:** What questions do you have about evaluating linear and non-linear functions?

## You Do Together

3.



Use the graph above to find the value of  $g(x)$  for each value of  $x$ .

- a. When  $x = 2$ ,  $g(x) = \square$
- b. When  $x = -4$ ,  $g(x) = \square$
- c. When  $x = -1$ ,  $g(x) = \square$

4. For the function  $h(x) = x^2 - 5x + 2$ , find the value of  $h(-6)$ .

5. For the function  $k(x) = 9x - 4$ , find the value of  $k(-8)$ .

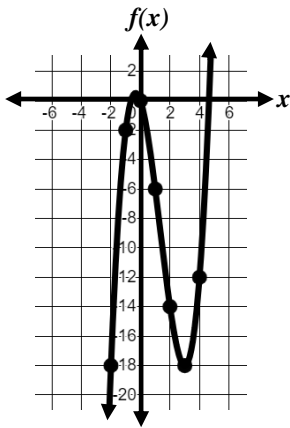
6. Evaluate  $t(x) = x^3 - 7x^2 + 3$  for  $x = -4$ .

7. Is the point  $(4, 21)$  a solution of the function,  $t(x) = x^3 - 3x^2 + 5$ ?

**Learning Target:** I will evaluate linear and non-linear functions.

**Form C**

## 1. We Do Together



Use the graph to find  $f(x)$  for each value of  $x$ .

- When  $x = 3$ ,  $f(x) = \square$
- When  $x = 0$ ,  $f(x) = \square$
- When  $x = -1$ ,  $f(x) = \square$

The graph to the left represents the function  $f(x)$ , where  $f(x) = x^3 - 4x^2 - 3x$ .

d. Find the value of  $f(x)$  when  $x = 5$ .

$$\begin{aligned}
 f(x) &= x^3 - 4x^2 - 3x \\
 f(5) &= \square^3 + -4 \cdot \square^2 + -3 \cdot \square \\
 &= \square + -4 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

e. Find the value of  $f(x)$  when  $x = -2$ .

$$\begin{aligned}
 f(x) &= x^3 - 4x^2 - 3x \\
 f(-2) &= \square^3 + -4 \cdot \square^2 + -3 \cdot \square \\
 &= \square + -4 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

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

$$\begin{aligned}
 f(\square) &= \square^3 + -4 \cdot \square^2 + -3 \cdot \square \\
 &= \square + -4 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

g. Is the point  $(-3, -54)$  a solution of the function,  $f(x) = x^3 - 4x^2 - 3x$ ?

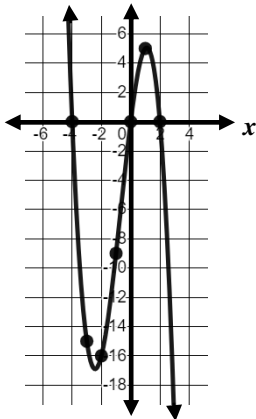
$$\begin{aligned}
 f(\square) &= \square^3 + -4 \cdot \square^2 + -3 \cdot \square \\
 &= \square + -4 \cdot \square + \square \\
 &= \square + \square + \square \\
 &= \square
 \end{aligned}$$

Yes or No?

**2. Reflect:** What questions do you have about evaluating linear and non-linear functions?

## You Do Together

3.



Use the graph above to find the value of  $g(x)$  for each value of  $x$ .

- When  $x = 1$ ,  $g(x) = \square$
- When  $x = -2$ ,  $g(x) = \square$
- When  $x = 2$ ,  $g(x) = \square$

4. For the function  $h(x) = x^2 - 7x + 3$ , find the value of  $h(-4)$ .

5. For the function  $k(x) = 8x - 6$ , find the value of  $k(7)$ .

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

7. Is the point  $(5, 21)$  a solution of the function,  $t(x) = x^3 - 4x^2 - 3$ ?