Candle Center - Infinite Algebra 1

Name_____

Evaluating and Graphing Functions

Date_____ Period_____

Evaluate each function for the given value.

1) $f(x) = 4x + 2$; Find $f(0)$

2) $f(x) = -2x + 2$; Find $f(-3)$

3) $f(x) = 2x$; Find $f\left(-\dfrac{9}{5}\right)$

4) $f(x) = -3x$; Find $f\left(\dfrac{3}{5}\right)$

5) $f(x) = 3x - 4$; Find $f(0.2)$

6) $f(x) = x + 6$; Find $f(3.8)$

7) $f(x) = |x - 3| - 5$; Find $f(8)$
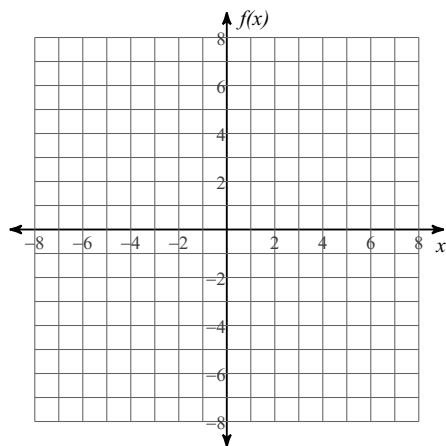
8) $f(x) = -3|x - 4|$; Find $f(3)$

9) $f(x) = x^2 + 2x - 4$; Find $f(-1)$

10) $f(x) = x^2 - 8x + 14$; Find $f(1)$
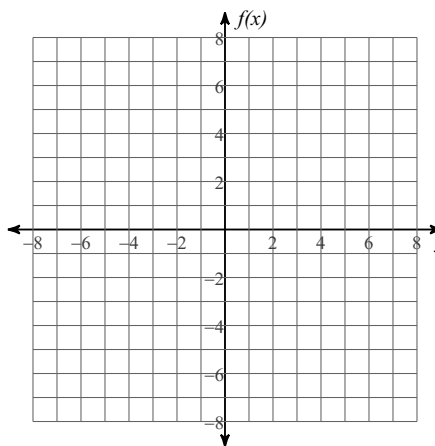
Graph each function for the given domain.

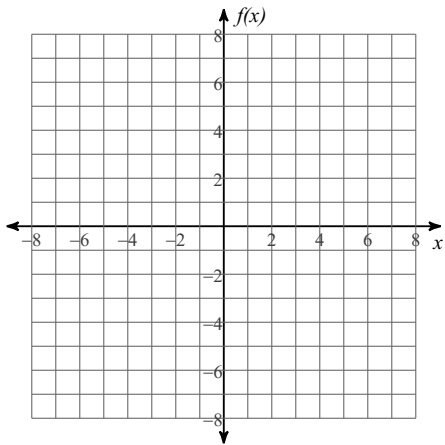11) $f(x) = -x + 4$
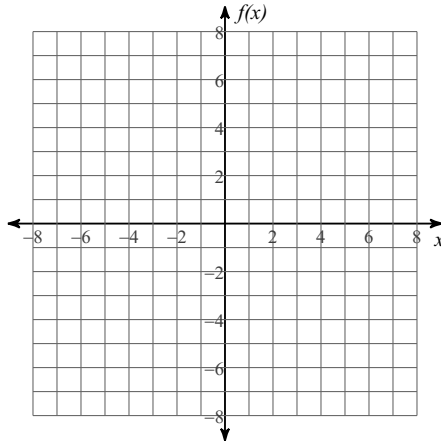   Domain: $\{-4, -3, 2, 4, 6\}$

12) $f(x) = -2x - 6$
    Domain: $\{-6, -5, -3, -1, 0\}$

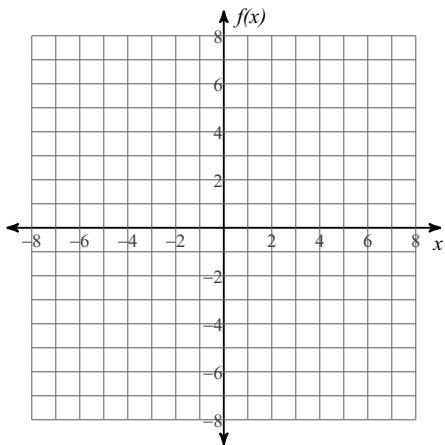13) $f(x) = 3\left|x - 5\right|$

Domain: $\{3, 4, 5, 6, 7\}$
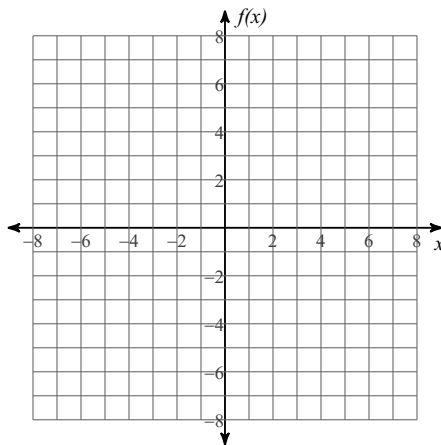

14) $f(x) = x^2$

Domain: $\{-2, -1, 0, 1, 2\}$

Graph each function.

15) $f(x) = -2x - 1$

16) $f(x) = 4x - 4$

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Evaluating and Graphing Functions

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Evaluate each function for the given value.

1) $f(x) = 4x + 2$; Find $f(0)$

2

2) $f(x) = -2x + 2$; Find $f(-3)$

8

3) $f(x) = 2x$; Find $f\left(-\dfrac{9}{5}\right)$

$-\dfrac{18}{5}$

4) $f(x) = -3x$; Find $f\left(\dfrac{3}{5}\right)$

$-\dfrac{9}{5}$

5) $f(x) = 3x - 4$; Find $f(0.2)$

-3.4

6) $f(x) = x + 6$; Find $f(3.8)$

9.8

7) $f(x) = |x - 3| - 5$; Find $f(8)$

0

8) $f(x) = -3|x - 4|$; Find $f(3)$

-3

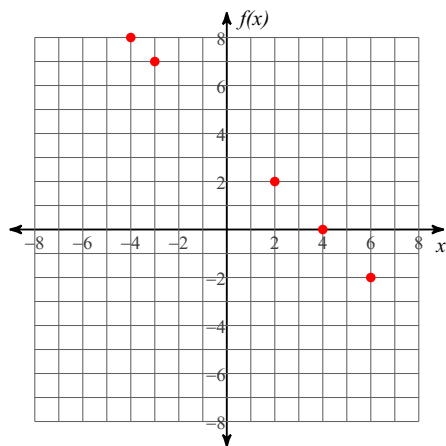9) $f(x) = x^2 + 2x - 4$; Find $f(-1)$

-5

10) $f(x) = x^2 - 8x + 14$; Find $f(1)$

7

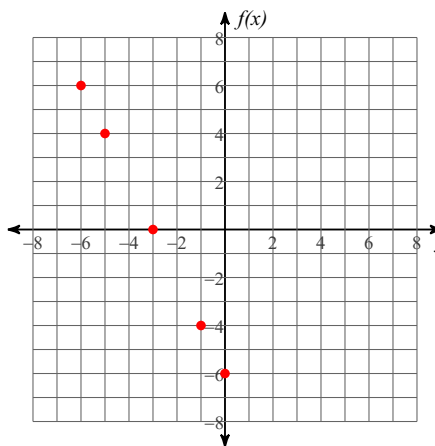**Graph each function for the given domain.**

11) $f(x) = -x + 4$
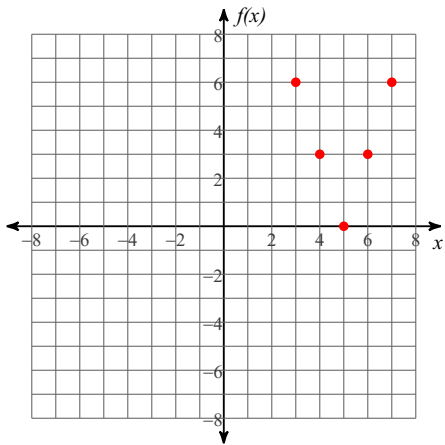   Domain: $\{-4, -3, 2, 4, 6\}$
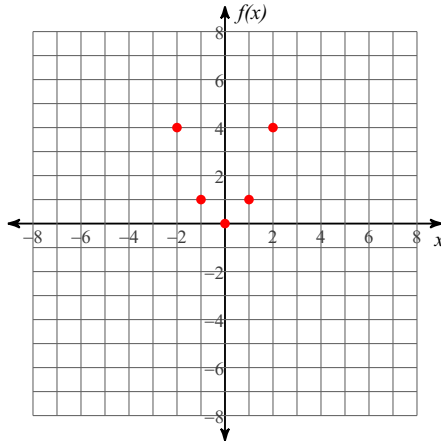

12) $f(x) = -2x - 6$
   Domain: $\{-6, -5, -3, -1, 0\}$

13) $f(x) = 3|x - 5|$
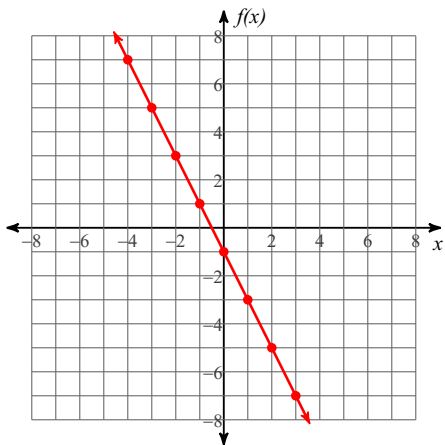   Domain: $\{3, 4, 5, 6, 7\}$

14) $f(x) = x^2$
   Domain: $\{-2, -1, 0, 1, 2\}$

Graph each function.

15) $f(x) = -2x - 1$

16) $f(x) = 4x - 4$