1. Simplify the following expression.

$$2\{[5(x-3)+3^2]-3[2(x+5)-7^2]\}$$

$2\{[5(x-3)+3^2]-3[2(x+5)-7^2]\} = \boxed{-2x+222}$ (Simplify your answer. Do not factor.)

2. Find the slope, if it exists, of the line containing the pair of points.

$(-6.9, 10.9)$ and $(-6.4, 2.1)$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

✓A. The slope is $\boxed{-17.6}$. (Simplify your answer.)

○B. The slope is undefined.

3. Divide and check.

$(a^2 - 6a - 72) \div (a+4)$

$(a^2 - 6a - 72) \div (a+4) = \boxed{a - 10 - \dfrac{32}{a+4}}$

(Simplify your answer. Use integers or fractions for any numbers in the expression.)

4. Determine whether the graphs of the two lines are parallel.

$$y + 1 = 9x$$
$$9x - y = -1$$

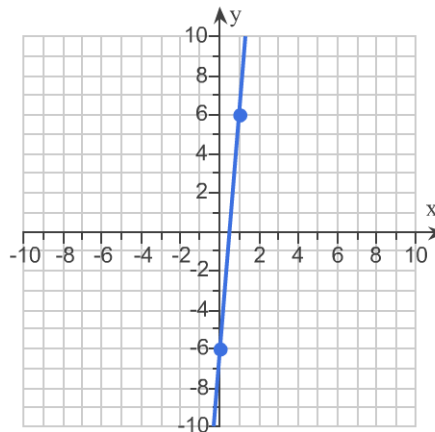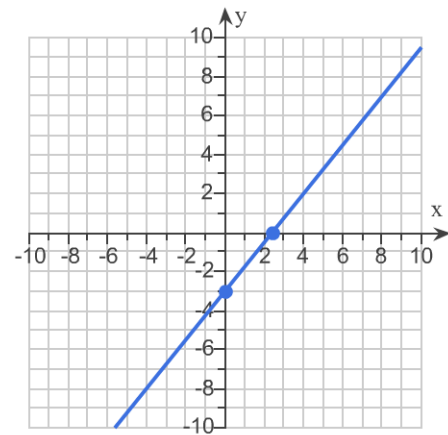Are the graphs of the given equations parallel?

○ ★ Yes

○ ✗ No

YOU ANSWERED: No

5. Graph $5x - 4 \cdot f(x) = 12$ using the slope and y-intercept. Hint: solve for f(x).

Use the graphing tool to graph the line. Use the slope and y-intercept when drawing the line.

YOU ANSWERED:

6. Determine whether the following is a function.

Domain	A set of numbers
Correspondence	Area of a triangle
Range	A set of triangles

Is it a function?

✔ No

○ Yes

7. Find the slope and the y-intercept.

$$9 - \frac{1}{5}y = 4x$$

The slope is -20 .

The y-intercept is (0, 45).

8. Find the indicated outputs for $f(x) = 2x^2 - 3x$.

$f(0) = 0$

$f(-1) = 5$

$f(2) = 2$

YOU ANSWERED: 6

-2

9. Find the slope and the y-intercept.

$y = 3.7x - 6$

The slope is 3.7 .
(Type an integer or a decimal.)

The y-intercept is $\left(0, -6\right)$.
(Type an integer or a decimal.)

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Submitted: 11/30/14 11:54am

Instructor: fahad aljabr
Course: MATH-001: Fundamentals of Math 11415
Book: Bittinger: Introductory and Intermediate Algebra, 4e

Assignment: Graded Homework 8

10.

Use the graph to find the following.

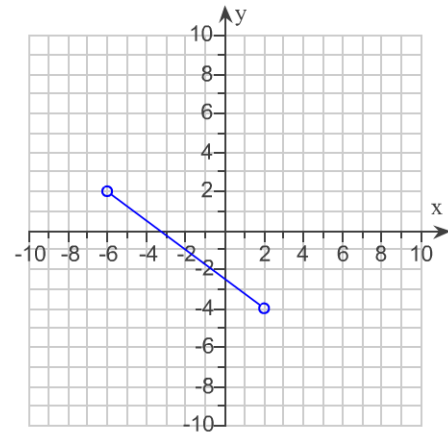$f(-2) = \boxed{-1}$

Choose the correct domain.

✓ A. $\{x \mid -6 < x < 2\}$

○ B. $\{x \mid -10 < x < 10\}$

○ C. $\{x \mid -4 < x < 2\}$

○ D. all real numbers

What are the x-values such that $f(x) = -1$?

○ A. $\varnothing$

✓ B. -2

○ C. $\{x \mid -6 < x < 2\}$

Choose the correct range.

✓ A. $\{y \mid -4 < y < 2\}$

○ B. $\{y \mid -10 < y < 10\}$

○ C. $\{y \mid -6 < y < 2\}$

○ D. all real numbers

11. For the graph, determine the value of:
a) f(− 3)
b) the domain
c) any x-values for which f(x) = 5
d) the range

a) f(− 3) = 3

b) The domain is

$\{ -6, -5, -4, -3, -2, -1, 0 \}$.

(Use a comma to separate answers as needed.)
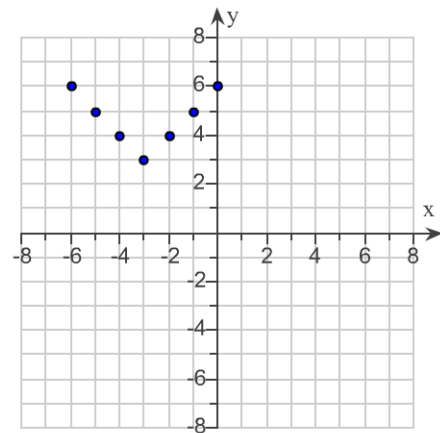
c) Find any x-value(s) for which f(x) = 5.

x = −1, −5

(Use a comma to separate answers as needed.)

d) The range is $\{ 3, 4, 5, 6 \}$.

(Use a comma to separate answers as needed.)

12. Determine whether the correspondence is a function.

Domain   Range

19 ⟶ 9
8
25   17

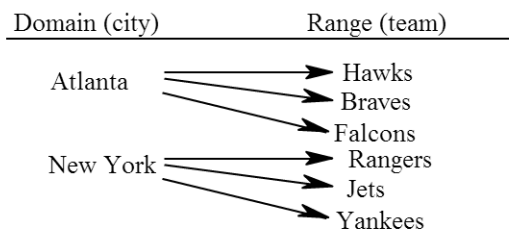Is this correspondence a function?

○   No

✔   Yes

13. Find the intercepts and then use them to graph the equation.

$$8y = -24 + 3x$$

Use the graphing tool to graph the line. Use the intercepts when drawing the line. If only one intercept exists, use it and another point to draw the line.

14. Determine whether the correspondence is a function.

Domain (city)   Range (team)

Atlanta — Hawks
        — Braves
        — Falcons
New York — Rangers
         — Jets
         — Yankees

Is this correspondence a function?

○   Yes

✔   No

15. Use the graph to find the following.
a) f(2)
b) the domain
c) any x-values for which f(x) = 3
d) the range

f(2) = 3

What is the domain? Select the correct choice below and, if necessary, fill in the answer box(es) to complete your choice.

○ A. $\{x \mid x \le \boxed{}\}$

○ B. $\{x \mid x \ge \boxed{}\}$

○ C. $\{x \mid \boxed{} \le x \le \boxed{}\}$

○ D. $\{x \mid x > \boxed{}\}$
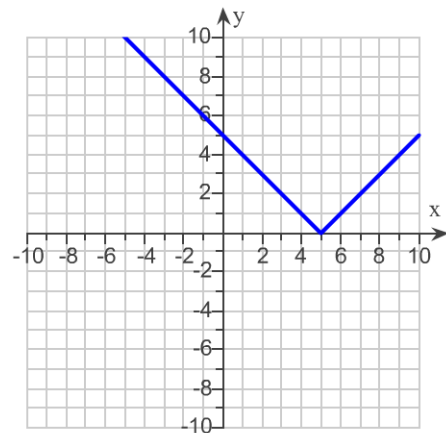
✔ E. The domain is all real numbers.

For what x-value(s) is f(x) = 3? Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

◉ A. x = 2,8
(Use a comma to separate answers as needed.)

○ B. There is no value of x for which f(x) = 3.

What is the range? Select the correct choice below and, if necessary, fill in the answer box(es) to complete your choice.

○ A. $\{y \mid \boxed{} \le y \le \boxed{}\}$

○ B. $\{y \mid y \le \boxed{}\}$

★ C. $\{y \mid y \ge 0\}$

○ D. $\{y \mid y > \boxed{}\}$

✘ E. The range is all real numbers.

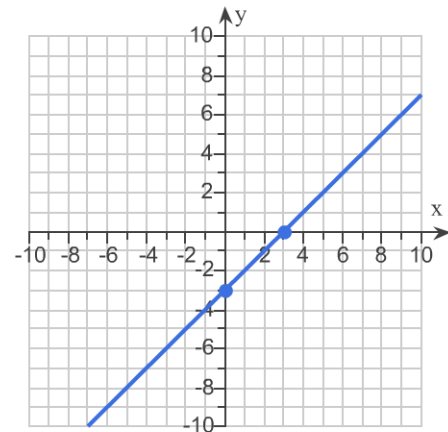YOU ANSWERED: A, [2]

15.
(cont.)   E

16.   Use the intercepts to graph the equation.

$x - 3 = y$

Use the graphing tool to graph the line. Use the intercepts when drawing the line. If only one intercept exists, use it and another point to draw the line.

17.   Find the domain.
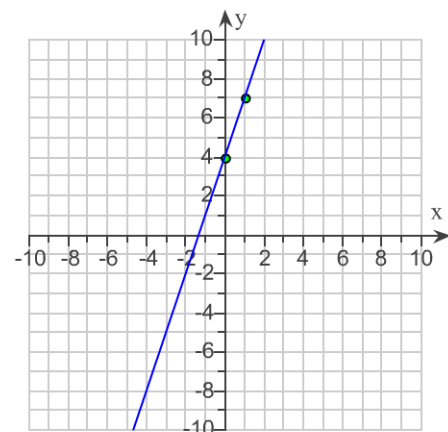
$p(x) = x^2 + 5$

Choose the correct domain below.

A. $\{x \mid x$ is a real number and $x \neq 0\}$ B. $\{x \mid x$ is a real number and $x \neq 5\}$

✔ C. $\{x \mid x$ is a real number$\}$ D. $\{x \mid x$ is a real number and $x > 0\}$

18.   Find the slope of the line.

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

✔ A. The slope of the line is m = 3 .
   (Type an integer or a simplified fraction.)
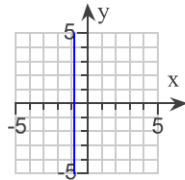
B. The slope is undefined.

19. Graph $3 - 4x = 9 + 3x$ and, if possible, determine the slope.

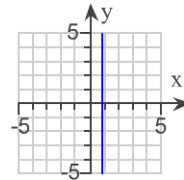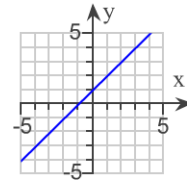Choose the correct graph below.

○ A. ✔ B. ○ C. ○ D.

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

✗ A. The slope is ☐ .

★ B. The slope is undefined.

YOU ANSWERED: A

20. For the graph, determine the value of:
a) f(1)
b) the domain
c) any x-values for which f(x) = 5
d) the range

a) $f(1) = 5$

b) The domain is
$\{ -4, -3, -2, -1, 0, 1, 2 \}$.
(Use a comma to separate answers as needed.)

c) Find any x-value(s) for which f(x) = 5.

$x = -3, 1$

(Use a comma to separate answers as needed.)

d) The range is $\{ 3, 4, 5, 6 \}$.
(Use a comma to separate answers as needed.)