Student: _____ **Date:** _____	**Instructor:** Ray Brown **Course:** Math050 Fall17 CAI 20039	**Assignment:** ch10_08 Rev HW

1. Click the link below to watch a video reviewing concepts in this chapter. You are encouraged to watch the video and work problems with the instructor to help ensure your understanding of the material.

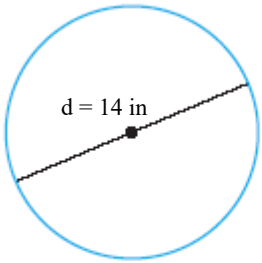
Chapter 10 Review[1]

- ○ True - I understand the concept.
- ○ False - I am not understanding the concept and intend to seek assistance.

1: http://www.screencast.com/t/hdgCN7IxsCg7

Answer: True - I understand the concept.

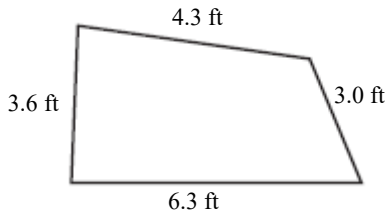
2. Find the area of the geometric figure. Use 3.14 as an approximation for π to approximate the area.



The approximate area of the geometric figure is _____ sq in.
(Type a decimal and round to three decimal places.)

Answer: 153.86

3. Find the perimeter of the polygon.



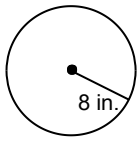
The perimeter of the polygon is _____ (1) _____ (Simplify your answer.)

(1) ○ square feet.
○ feet.

Answers 17.2

(1) feet.

4. Determine the circumference and approximate area of the given circle, using 3.14 for π.



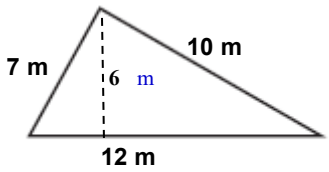
The circumference is _____ in.
(Type an integer or decimal rounded to the nearest tenth as needed.)

The area is _____ $in.^2$
(Type an integer or decimal rounded to the nearest tenth as needed.)

Answers 50.2

201

5. Find the perimeter and area of the polygon. All measurements are in meters.



The perimeter of the polygon is _____ meters.

The area of the polygon is _____ square meters.
(Round to 1 decimal place as needed.)

Answers 29

36

6. If a line has no y-intercept, what can be said about the line?

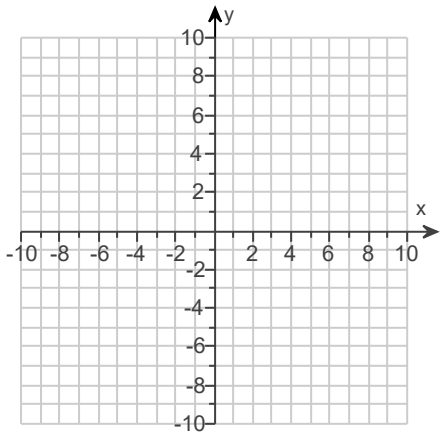
Choose the correct answer below.

- **A.** It is slanted with negative slope.
- **B.** It is slanted with positive slope.
- **C.** It is vertical.
- **D.** It is horizontal.

Answer: C. It is vertical.

7. Plot the given ordered pairs in the same xy-plane. If possible, state the quadrant in which each of the points is located.

(0,4), (5, − 3), and (− 7, − 6)



Use the graphing tool to plot the given points.

Complete the statements below.

The point (0,4) is (1) _____

The point (5, − 3) is (2) _____

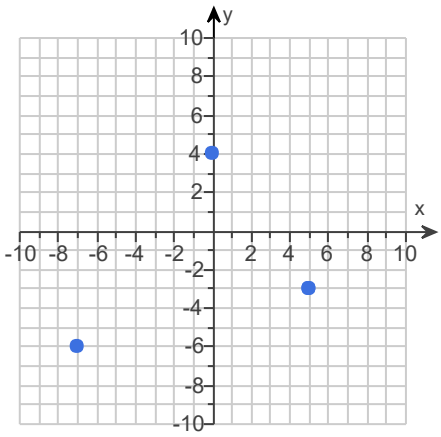
The point (− 7, − 6) is (3) _____

(1) ○ in quadrant I. ○ not in any quadrant.
○ in quadrant II.
○ in quadrant III.
○ in quadrant IV.

(2) ○ in quadrant I. ○ not in any quadrant.
○ in quadrant II.
○ in quadrant III.
○ in quadrant IV.

(3) ○ in quadrant I. ○ not in any quadrant.
○ in quadrant II.
○ in quadrant III.
○ in quadrant IV.

Answers



(1) not in any quadrant.

(2) in quadrant IV.

(3) in quadrant III.

8. If possible, identify the quadrant in which each point is located.

(a) (5,0) (b) (0.1,3)

(a) Identify the quadrant in which the point (5,0) is located. Choose the correct answer below.

- **A.** II
- **B.** I
- **C.** III
- **D.** IV
- **E.** None of the above

(b) Identify the quadrant in which the point (0.1,3) is located. Choose the correct answer below.

- **A.** I
- **B.** III
- **C.** II
- **D.** IV
- **E.** None of the above

Answers E. None of the above

A. I

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9. Determine whether the ordered pair $(-4,2)$ is a solution to the equation $6x - y = -29$.

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

- **A.** The ordered pair $(-4,2)$ is not a solution to the equation because substituting the values from the ordered pair into the equation results in a false statement.
- **B.** The ordered pair $(-4,2)$ is a solution to the equation because substituting the values from the ordered pair into the equation results in a false statement.
- **C.** The ordered pair $(-4,2)$ is not a solution to the equation because substituting the values from the ordered pair into the equation results in a true statement.
- **D.** The ordered pair $(-4,2)$ is a solution to the equation because substituting the values from the ordered pair into the equation results in a true statement.

Answer: A.

The ordered pair $(-4,2)$ is not a solution to the equation because substituting the values from the ordered pair into the equation results in a false statement.

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10. Use the given values of the variable to make a table of solutions for the equation.

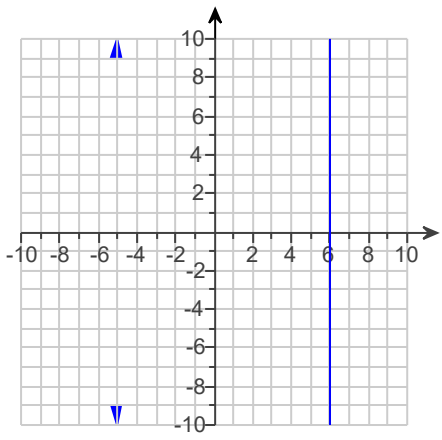
$y + x = 5$ $y = -2, 0, 2, 4$

x				
y	−2	0	2	4

(Type integers or simplified fractions.)

Answers 7
5
3
1

11. If possible, find the slope of the line. Interpret the slope in terms of rise and run.



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

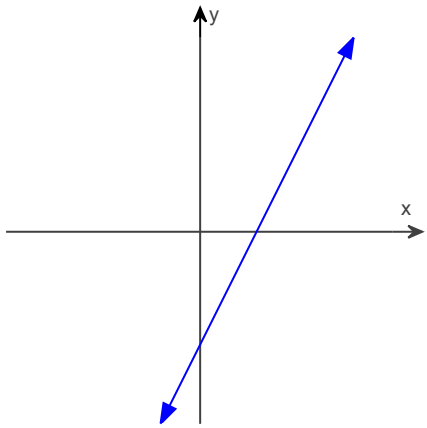
- **A.** The slope of the line is m = _____. (Type an integer or a simplified fraction.)
- **B.** The slope is undefined.

Interpret the slope in terms of rise and run. Select the best choice below and, if necessary, fill in the answer box to complete your choice.
(Type a positive number.)

- **A.** The graph rises _____ unit(s) for each 1 unit of run.
- **B.** The graph falls _____ unit(s) for each 1 unit of run.
- **C.** The run always equals 0.
- **D.** The rise always equals 0.

Answers B. The slope is undefined.
C. The run always equals 0.

12. For the graph on the right, determine if the slope is positive, negative, zero, or undefined.



Choose the correct slope.

- Zero
- Undefined
- Positive
- Negative

Answer: Positive

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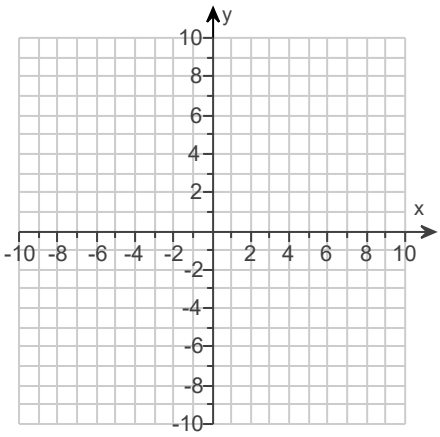
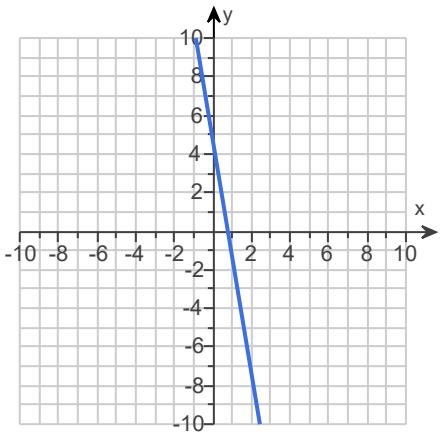
13. Sketch a line passing through the point and having slope m.

(0,5), m = − 6

Use the graphing tool to graph the equation.



Answer:



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14. Complete the following parts for $x - 3y = -15$.
(a) Write the equation in slope-intercept form.
(b) Give the slope and y-intercept of the line.

(a) The slope-intercept form of the equation is _____.
(Simplify your answer. Use integers or fractions for any numbers in the equation.)

(b) The slope of the line is _____.
(Type an integer or a simplified fraction.)

The y-intercept of the line is _____.
(Type an ordered pair.)

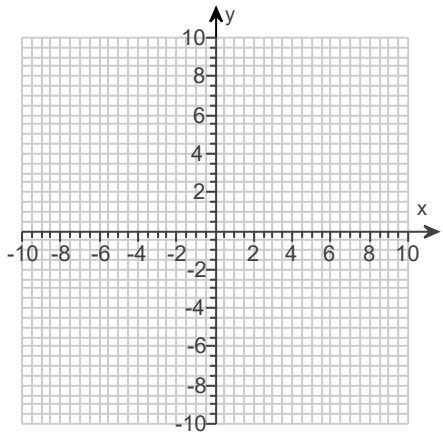
Answers $y = \frac{1}{3}x + 5$

$\frac{1}{3}$

(0,5)

15. Find any intercepts for the graph of the linear equation and then graph the equation.

$x - 5y = 5$



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

- **A.** The x-intercept is _____.
  (Type an ordered pair, using integers or fractions. Use a comma to separate answers as needed.)
- **B.** There is no x-intercept.

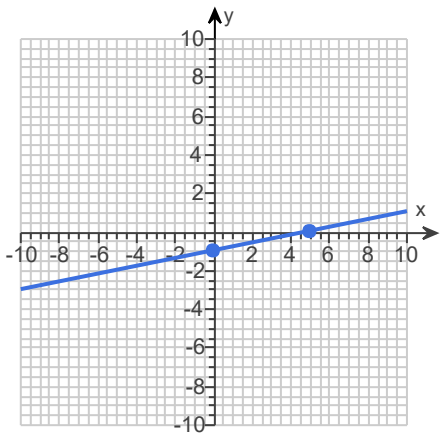
Identify the y-intercept. Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- **A.** The y-intercept is _____.
  (Type an ordered pair, using integers or fractions. Use a comma to separate answers as needed.)
- **B.** There is no y-intercept.

Use the graphing tool to graph the equation. Use the intercepts when drawing the line.

Answers A. The x-intercept is **(5,0)**.
(Type an ordered pair, using integers or fractions. Use a comma to separate answers as needed.)

A. The y-intercept is **(0, − 1)**.
(Type an ordered pair, using integers or fractions. Use a comma to separate answers as needed.)



16. Graph the equation.

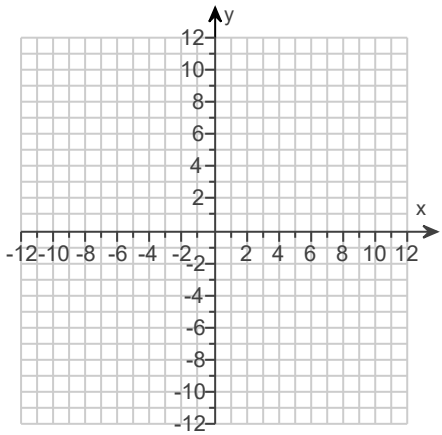
$y = -1 - 4x$

Determine the corresponding y-value for each x-value in the table.

x	−1	0	1	2
y				

(Type integers or simplified fractions.)

Use the 4-point graphing tool to graph the equation.

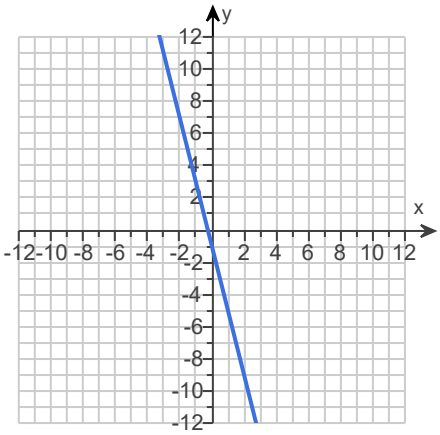


Answers 3

−1

−5

−9



17. Graph the linear equation by solving for y first.

$3x - 4y = 12$

Solve the equation for y.

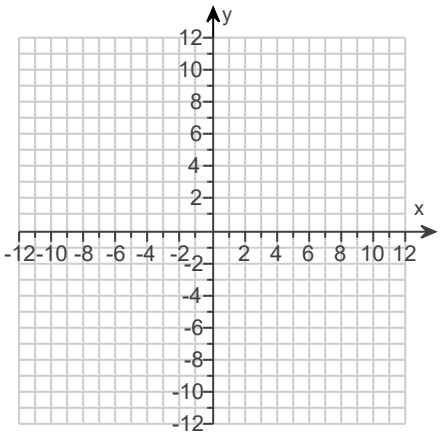
y = _____
(Simplify your answer. Use integers or fractions for any numbers in the expression.)

Determine the corresponding y-value for each x-value in the table.

x	− 4	0	4	8
y				

(Type integers or simplified fractions.)

Use the 4-point graphing tool to graph the equation.



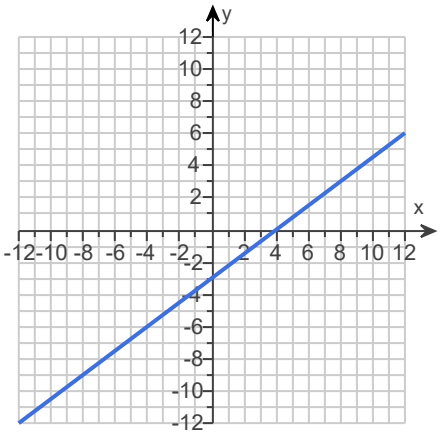
Answers $\frac{3}{4}x - 3$

− 6

− 3

0

3



18. If possible, find the slope of the line passing through the points (3, − 6) and (4, − 7).

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

- **A.** The slope is _____.
  (Type an integer or a simplified fraction.)
- **B.** The slope is undefined.

Answer: A. The slope is **− 1** .(Type an integer or a simplified fraction.)

19. The table shows points that all lie on the same line. Find the slope-intercept form for the line.

x	0	1	2
y	7	11	15

The slope-intercept form of the equation is _____.
(Simplify your answer. Use integers or fractions for any numbers in the equation.)

Answer: $y = 4x + 7$

---

20. Find the slope-intercept form of the line satisfying the given conditions.

Perpendicular to $6x - 3y = 9$, passing through $(4, -4)$

The slope-intercept form of the line perpendicular to $6x - 3y = 9$ passing through $(4, -4)$ is _____.
(Simplify your answer. Use integers or fractions for any numbers in the equation.)

Answer: $y = -\frac{1}{2}x - 2$

---

21. Find the slope-intercept form of the line satisfying the given conditions.

Slope $\frac{2}{3}$, y-intercept (0,4)

The slope-intercept form of the equation is _____.
(Simplify your answer. Use integers or fractions for any numbers in the equation.)

Answer: $y = \frac{2}{3}x + 4$

---

22. Find the slope-intercept form of the line satisfying the given conditions.

Parallel to $2x + 6y = 11$, passing through (1,7).

The slope-intercept form of the line parallel to $2x + 6y = 11$ passing through (1,7) is _____.
(Type an equation. Use integers or fractions for any numbers in the equation.)

Answer: $y = -\frac{1}{3}x + \frac{22}{3}$

---

23. Find a point-slope form for the line that satisfies the stated conditions. Use the given point in the point-slope form.

Slope 9, passing through $(-1,2)$

The equation is _____.
(Simplify your answer.)

Answer: $y - 2 = 9(x + 1)$

---

24. Write the point-slope form in slope-intercept form.

$y - 1 = \frac{2}{3}(x + 6)$

The equation is _____.
(Simplify your answer. Type your answer in slope-intercept form. Use integers or fractions for any numbers in the equation.)

Answer: $y = \frac{2}{3}x + 5$

---

25. Write the equations of a horizontal line and a vertical line that pass through the point (6,1). (Hint: Make a sketch.)

The equation of the horizontal line is _____.
(Simplify your answer.)

The equation of the vertical line is _____.
(Simplify your answer.)

Answers $y = 1$

$x = 6$

---

26. Find the slope-intercept form for the line satisfying the conditions.

Perpendicular to $y = -\frac{1}{4}x + 2$, passing through the point $(6, -3)$

The equation of the line is _____.
(Type your answer in slope-intercept form.)

Answer: $y = 4x - 27$

---

27. The points in the table lie on a line. Find the slope-intercept form of the line.

x	2	4	6	8
y	− 5	− 9	− 13	− 17

The slope-intercept form of the line is _____. (Type an equation.)

Answer: $y = -2x - 1$

---

28. The points in the table lie on a line. Find the slope-intercept form of the line.

x	−1	1	3	5
y	1	4	7	10

The equation of the line is _____.
(Simplify your answer. Type your answer in slope-intercept form. Use integers or fractions for any numbers in the equation.)

Answer: $y = \frac{3}{2}x + \frac{5}{2}$