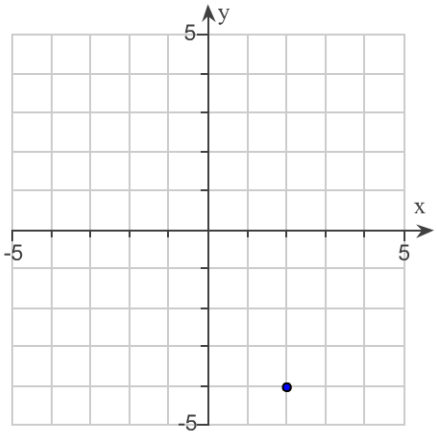
Student: yaser almohaws **Submitted:** 09/23/14 11:34am	**Instructor:** fahad aljabr **Course:** MATH-001: Fundamentals of Math 11415 **Book:** Bittinger: Introductory and Intermediate Algebra, 4e	**Assignment:** Graded Homework 3

1. Find the coordinates of the point shown on the graph.



What are the coordinates of the point?

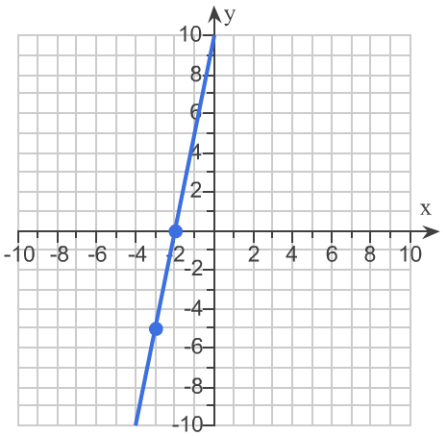
$(2, -4)$

(Type an ordered pair.)

2. Graph the line containing the given pair of points and find the slope.

$(-2,0), (-3,-5)$

Use the graphing tool to graph the line.



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

A. The slope is 5.
(Type an integer or a simplified fraction.)

B. The slope of this line is not defined.

3. Simplify.

$(v^{-5})^{-3}$

YOU ANSWERED: $\frac{1}{v^{15}}$

$(v^{-5})^{-3} = v^{15}$

(Simplify your answer. Type exponential notation using positive exponents.)

4. Multiply and simplify.

$(3x)^5 \cdot (3x)^4$

YOU ANSWERED: $3x^9$

$(3x)^5 \cdot (3x)^4 = (3x)^9$

(Type exponential notation with positive exponents.)

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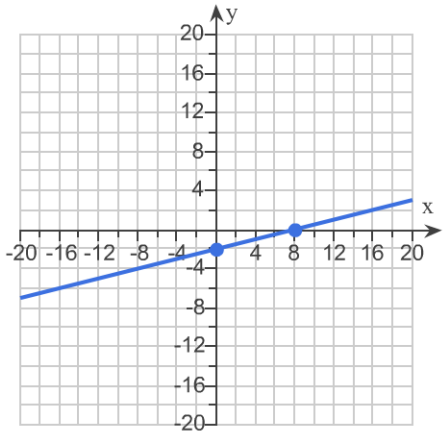
5. Use the intercepts to graph the equation.

$2x - 8y = 16$

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.



6. Multiply and simplify.

$(5w)^6 \cdot (5w)^{19}$

YOU ANSWERED: $5w^{25}$

$(5w)^6 \cdot (5w)^{19} = (5w)^{25}$

(Type exponential notation with positive exponents.)

7. What is the meaning of this expression?

8^3

$8^3 = 8 \cdot 8 \cdot 8$

(Type your answer as a product. Do not simplify.)

YOU ANSWERED: 512

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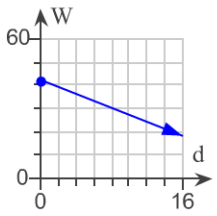
8. The average number of gallons W of bottled water consumed each year by the consumer can be approximated by $W = 1.5d + 19.89$, where d is the number of years since 2000.
(a) Find the average number of gallons of bottled water consumed in 2001 ($d = 1$), in 2010, and in 2015.
(b) Graph the equation and use the graph to estimate what the bottled water consumption was in 2008.
(c) In what year will bottled water consumption be about 39 gal?

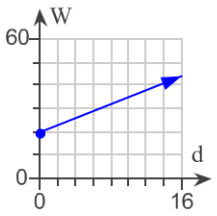
(a) The average number of gallons of bottled water consumed in 2001 was 21.39 gal.
(Type an integer or a decimal.)

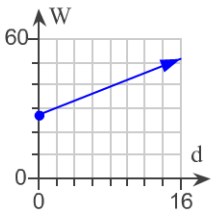
The average number of gallons of bottled water consumed in 2010 was 34.89 gal.
(Type an integer or a decimal.)

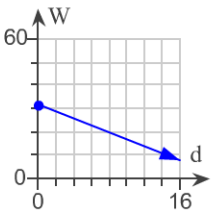
The average number of gallons of bottled water consumed in 2015 was 42.39 gal.
(Type an integer or a decimal.)

(b) Choose the correct graph below.

A. 

B. 

C. 

D. 

The bottled water consumption in 2008 was about 32 gal.

(c) The bottled water consumption will be about 39 gal in year 2013.

9. Find the slope, if it exists.

$y = -4x + 4$

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

A. $m =$ -4 (Type an integer or a simplified fraction.)

B. The slope is undefined.

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10. Simplify. Assume $m \neq 0$.

$(m^{-7})^{6}$

$(m^{-7})^{6} = \dfrac{1}{m^{42}}$

(Type exponential notation with positive exponents.)

11. Simplify.

$(r^{-7})^{-9}$

YOU ANSWERED: $\dfrac{1}{r^{36}}$

$(r^{-7})^{-9} = r^{63}$

(Simplify your answer. Type exponential notation using positive exponents.)

12. Evaluate this expression.

g^{1}

$g^{1} = g$

(Simplify your answer.)

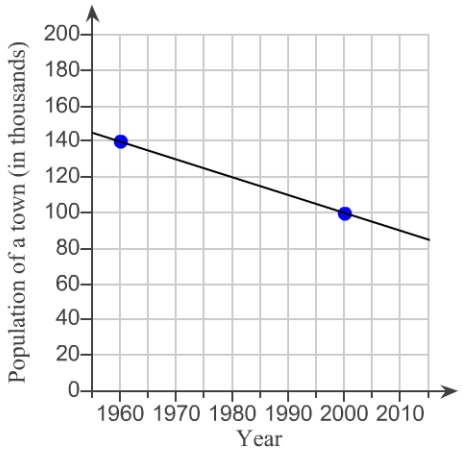
13. Evaluate the expression.

$(-6.1)^{1}$

$(-6.1)^{1} = -6.1$

(Simplify your answer. Type an integer or a decimal.)

14. The following graph shows data regarding the population of a town. At what rate was the population changing?



Population was changing at a rate of -1000 people / yr.

(Type an integer or a decimal.)

YOU ANSWERED: -1

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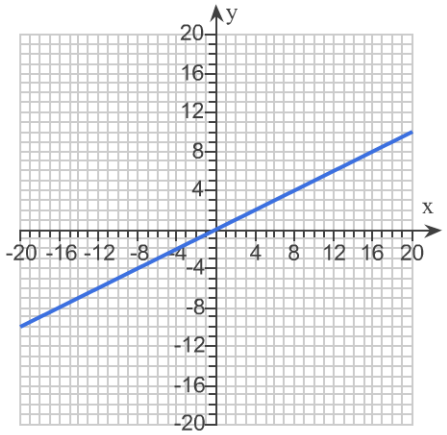
15. Graph the equation and identify the y-intercept.

$y = \frac{1}{2}x$

Use the graphing tool on the right to graph the equation.

The y-intercept is $(0,0)$.
(Type an ordered pair.)



16. Find the slope of the line.

$y = 3$

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

A. The slope is 0. (Type an integer or a simplified fraction.)

B. The slope is undefined.

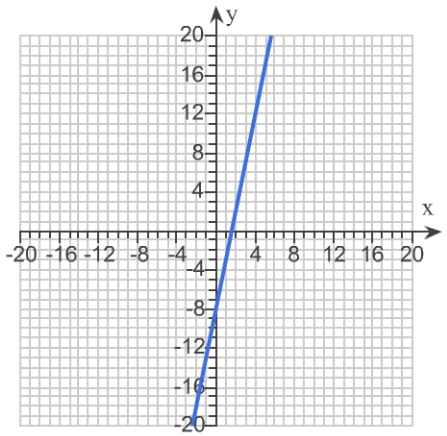
YOU ANSWERED: A, 3

17. Graph the equation and identify the y-intercept.

$y = 5x - 8$

Use the graphing tool on the right to graph the equation.

The y-intercept is $(0,-8)$.
(Type an ordered pair.)



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18. Find the slope, if it exists, of the following line.

$$x = \frac{2}{11}$$

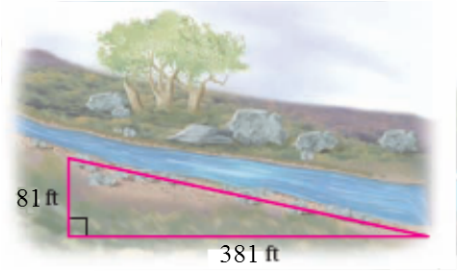
Select the correct choice below, and fill in the answer box if necessary.

A. The slope is ____. (Type an integer or a simplified fraction.)

B. The slope of this line is not defined

YOU ANSWERED: A

19. Find the slope of the river.



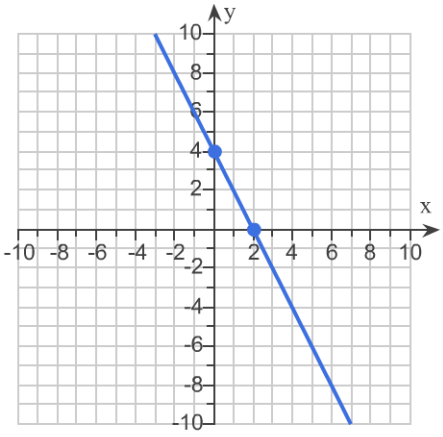
The slope of the river is $\frac{27}{127}$.

(Type an integer or a simplified fraction. Type a positive number.)

20. Use the intercepts to graph the equation.

$2x + y = 4$

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.



21. At the beginning of 2007, a start-up company had already received 70,000 hits at its website. At the beginning of 2009, that number had climbed to 430,000. Calculate the rate at which the number of hits is increasing.

Rate = 180,000 hits/year

YOU ANSWERED: 120

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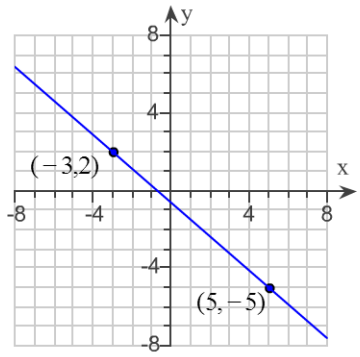
22.

Find the slope, if it exists, of the line.



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

A. $m = -\frac{7}{8}$ (Type an integer or a simplified fraction.)

B. The slope is undefined.

YOU ANSWERED: A, $\frac{7}{8}$

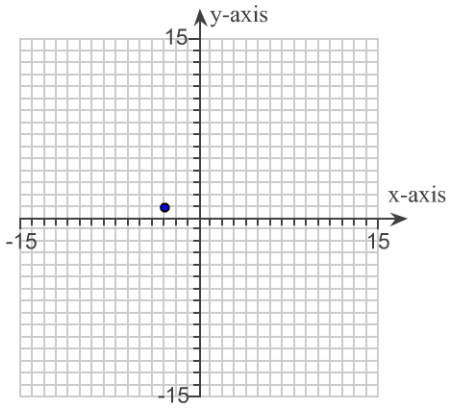
23. In which quadrant is the given point $(-3, 1)$ located?

A. Quadrant I

B. Quadrant IV

C. Quadrant III

D. Quadrant II



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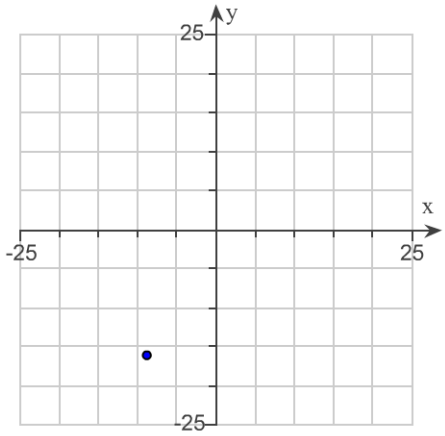
24. In which quadrant is the given point $(-9, -16)$ located?

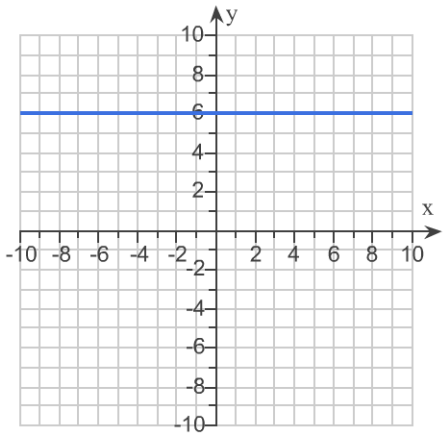
- A. Quadrant I
- B. Quadrant II
- ✓ C. Quadrant III
- D. Quadrant IV



25. Graph the equation.

$y = 6$

Use the graphing tool on the right to graph the equation.



26. Find the slope, if it exists.

$6x - y = 3$

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

- ✓ A. m = 6 (Type an integer or a simplified fraction.)
- B. The slope is undefined.

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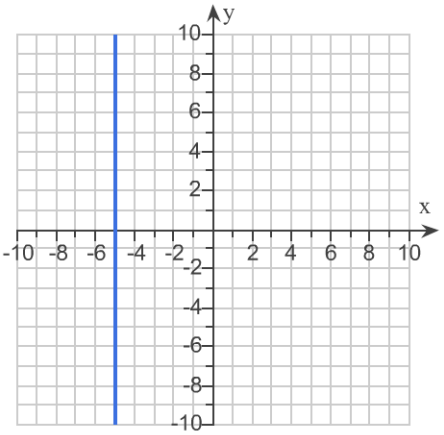
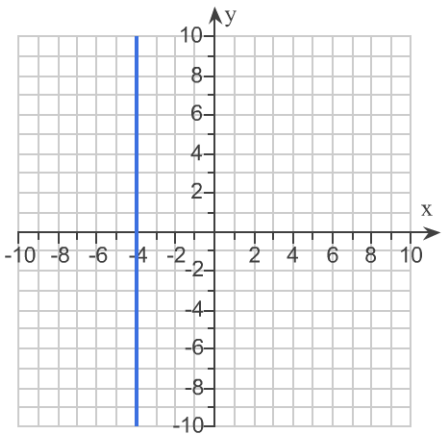
27. Graph the equation by plotting points.

$3x + 15 = 0$

Use the graphing tool on the right to graph the equation.





YOU ANSWERED:

28. Simplify. Assume $k \neq 0$.

$(k^9)^{-3}$

$(k^9)^{-3} = \frac{1}{k^{27}}$

(Type exponential notation with positive exponents.)