

# QUIZZZ

## Algebra 2 Enriched Practice Midterm

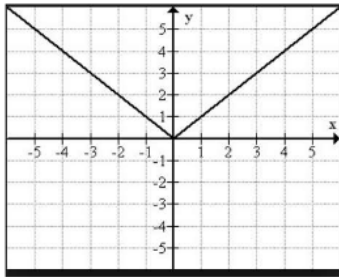
79 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_

1.



What is the name of the parent function and equation for the graph?

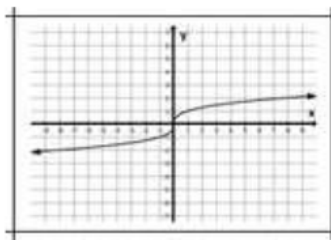
a) Rational -  $y = 1/x$

c) Linear -  $y = x$

b) Absolute Value -  $y = |x|$

d) Quadratic -  $y = x^2$

2.



What is the name of the parent function and equation for the graph?

a) Quadratic -  $y = x^2$

c) Square Root -  $y = \sqrt{x}$

b) Absolute Value -  $y = |x|$

d) Cube Root -  $y = \sqrt[3]{x}$

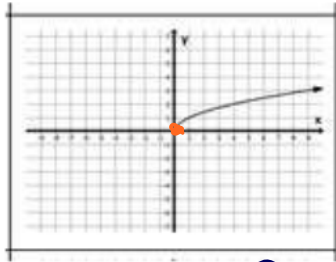
$a\sqrt{b(x-h)} + k$   
 $\sqrt{-x}$

reflected over y-axis  
 reflected over x-axis

or  
 reflected

Help

3.

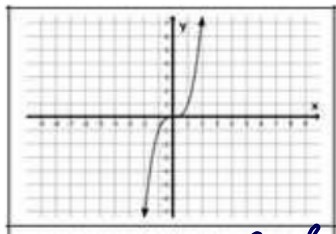


What is the name of the parent function and equation for the graph?

- a) Quadratic -  $y = x^2$
- c) Square Root -  $y = \sqrt{x}$

- b) Absolute Value -  $y = |x|$
- d) Cube Root -  $y = \sqrt[3]{x}$

4.

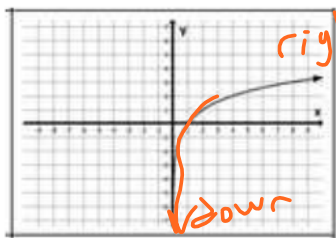


What is the name of the parent function and equation for the graph?

- a) Cubic -  $y = x^3$
- c) Exponential -  $y = 2^x$

- b) Cube Root -  $y = \sqrt[3]{x}$
- d) Logarithmic -  $y = \log(x)$

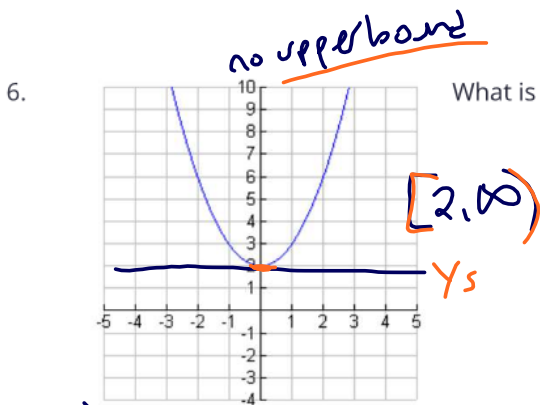
5.



What is the name of the parent function and equation for the graph?

- a) Square Root -  $y = \sqrt{x}$
- c) Logarithmic  $y = \log(x)$

- b) Exponential -  $y = 2^x$
- d) Cube Root -  $y = \sqrt[3]{x}$



What is the range of the graph?

y values (lowest, highest)  
1st 2nd

( ) - not equal  
- not touching  
- not included

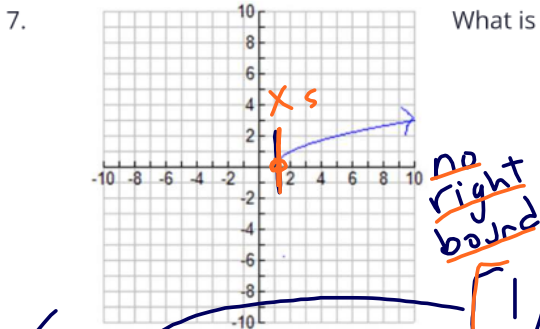
[ ] equal touching included ✓

- a)  $\{x \mid x \geq 2\}$   
 c)  $\{x \mid x = \mathbb{R}\}$

x is for domain

- b)  $\{y \mid y \geq 2\}$   
 d)  $\{y \mid y = \mathbb{R}\}$

$y \in \mathbb{R}$   
 $(-\infty, \infty)$



What is the domain of the graph?

x values (leftmost, rightmost)  
1st 2nd

- a)  $\{x \mid x \geq 1\}$   
 c)  $\{x \mid x \geq 0\}$

- b)  $\{y \mid y \geq 1\}$   
 d)  $\{y \mid y \geq 0\}$

y is range

8. What does "a" do in this function:  $f(x) = a f(x - h) + k$

- a) Vertically stretches, shrinks, and reflects the function  
 b) Vertically shifts the function up or down only  
 c) Horizontally shifts the function left or right only  
 d) Vertically stretches and shrinks the function only

9. What does "h" do in this function:  $f(x) = a f(x - h) + k$
- a) Vertically stretches, shrinks, and reflects the function
  - b) Vertically shifts the function up or down only
  - c) Horizontally shifts the function left or right only
  - d) Vertically stretches and shrinks the function only

10. What does "k" do in this function:  $f(x) = a f(x - h) + k$
- a) Vertically stretches, shrinks, and reflects the function
  - b) Vertically shifts the function up or down only
  - c) Horizontally shifts the function left or right only
  - d) Vertically stretches and shrinks the function only

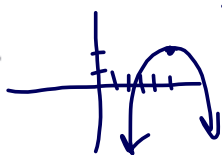
$a: f(x-h) + k$       Vertex: (h, k)

11. Identify the transformation of the equation.

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

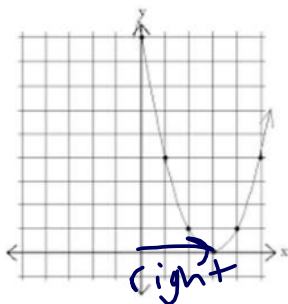
Vertex (5, 2)

- a) Reflect/Left 5/Down 2
- b) Reflect/Right 5/Up 2
- c) Reflect/Right 2/Down 5
- d) Right 5/Up 2



a is negative  
Vert. reflection  
over x axis

12. What is the equation of the graph?



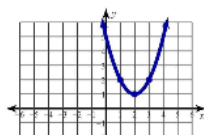
- a)  $y = (x + 3)^2$  left + 3
- c)  $y = (x - 3)^2$  right + 3
- b)  $y = |x + 3|$
- d)  $y = |x - 3|$

these are Abs. Value functions

Parabolas have ( )<sup>2</sup>

Compare to parent  
at origin (0,0)

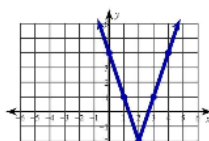
13.



Describe each of the transformations from the parent functions for the following graphs.  
Write an equation.

- a) Left 2, Down 2, Vertical Stretch
- b) Right 2; Up 1;
- c) Vertical Stretch; Right 2; Up 1
- d) Left 2; Down 2;

14.

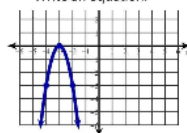


Describe each of the transformations from the parent functions for the following graphs.  
Write an equation.

- a) Left 2; Up 2
- b) Right 2; Down 2
- c) Left 2; Up 2; Reflection over x-axis
- d) Vertical stretch by factor of 3; Right 2; Down 2

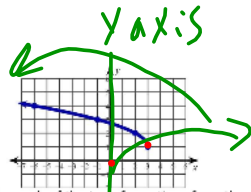
15.

Describe each of the transformations from the parent functions for the following graphs.  
Write an equation.



- a) Vertical Stretch by factor of 3; Reflection over x-axis; Left 3
- b) Horizontal Compression by factor of 3; Reflection over y-axis; Left 3
- c) Vertical Stretch by 3; Reflection over y-axis; Left 3
- d) Reflection over x-axis; Left 3

16.

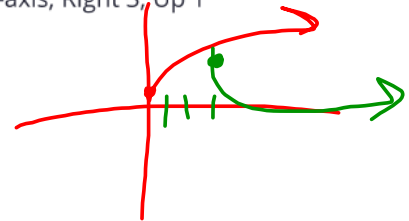


Describe each of the transformations from the parent functions for the following graphs. Write an equation.

- a) Reflection over y-axis; Right 3; Up 1
- b) Right 3; Up 1
- c) Reflection over x-axis; Left 3; Up 1
- d) Reflection of x-axis; Right 3; Up 1

17. What is the vertex of  $f(x) = -|x - 3|$  ?

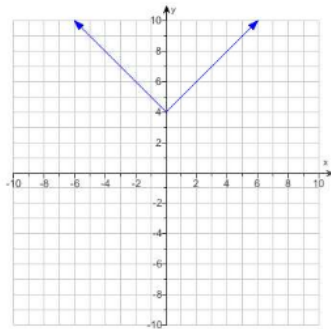
- a) (-1,-3)
- b) (-1,0)
- c) (-3,0)
- d) (3,0)



18. What is the vertex of  $f(x) = 6|x - 1| - 2$  ?

- a) (6,-1)
- b) (-1,-2)
- c) (1,-2)
- d) (1,2)

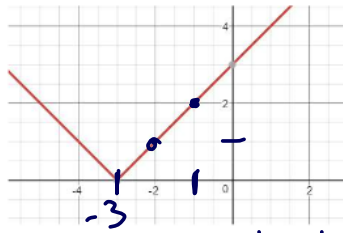
19.



Describe the transformation from the Absolute Value Parent Function.

- a) Shift up 4 units
- b) Shift down 4 units
- c) Shift left 4 units
- d) Shift right 4 units

20.



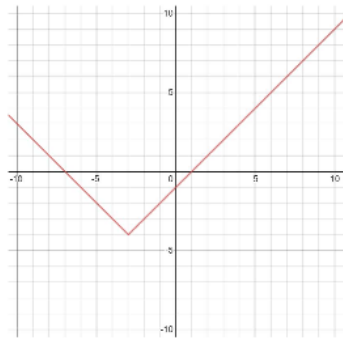
Which equation below matches the graph?

*slope is 1  
vertex (-3, 0)*

- a)  ~~$y = 3|x|$~~
- c)  $y = |x + 3|$   
 $(x - -3)$

- b)  ~~$y = -3|x|$~~
- d)  $y = |x - 3|$

21.

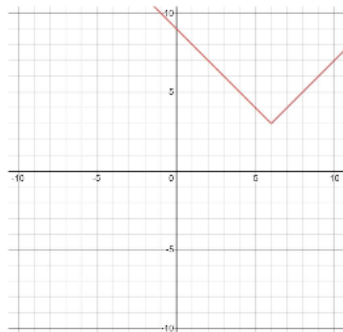


Choose the correct equation for the graph.

- a)  $y = |x + 3| - 4$
- c)  $y = |x + 3| + 4$

- b)  $y = |x - 3| - 4$
- d)  $y = |x - 3| + 4$

22.

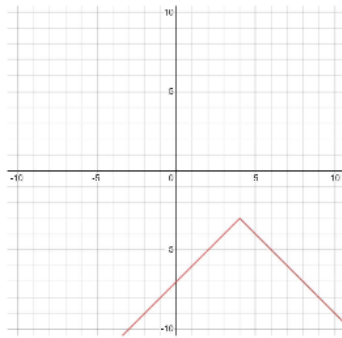


Choose the correct equation for the graph.

- a)  $y = |x - 6| - 3$
- c)  $y = |x + 6| + 3$

- b)  $y = |x - 6| + 3$
- d)  $y = |x + 6| - 3$

23.



Choose the correct equation for the graph below.

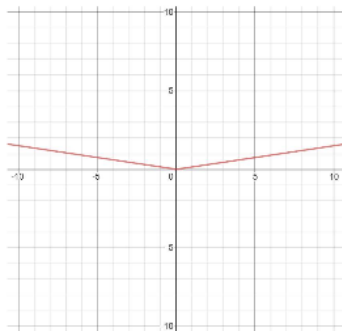
a)  $y = |x - 4| - 3$

b)  $y = -|x + 4| - 3$

c)  $y = -|x - 4| - 3$

d)  $y = -|x + 4| + 3$

24.



Choose the correct equation for the graph.

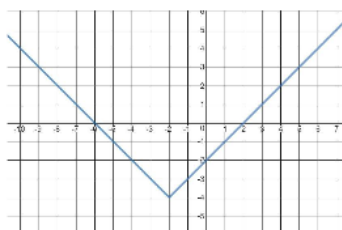
a)  $y = 3|x|$

b)  $y = \frac{1}{3}|x|$

c)  $y = -\frac{1}{3}|x|$

d)  $y = \left|x - \frac{1}{3}\right|$

25.



Which function is graphed?

a)  $f(x) = 2|x + 2| - 4$

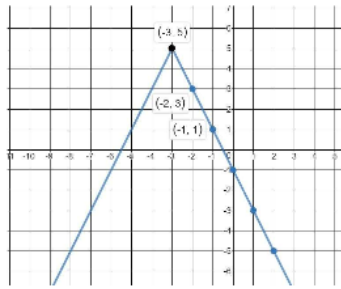
b)  $f(x) = 2|x - 4| + 2$

c)  $f(x) = |x + 2| - 4$

d)  $f(x) = -2|x - 4|$



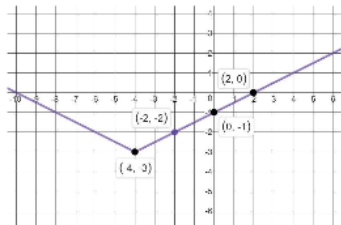
26.



Which function is graphed?

- a)  $f(x) = -2|x - 3| + 5$
- b)  $f(x) = -|x + 5| - 3$
- c)  $f(x) = -2|x + 3| + 5$
- d)  $f(x) = -2|x - 5| + 3$

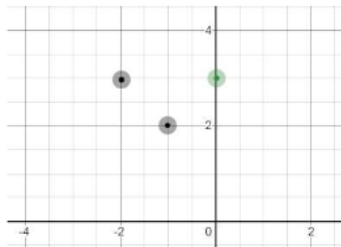
27.



Which function is graphed?

- a)  $f(x) = 2|x + 4| - 3$
- b)  $f(x) = 1/2|x + 4| - 3$
- c)  $f(x) = 1/2|x + 3| - 2$
- d)  $f(x) = 4|x + 3| - 2$

28.



What absolute value function would go through these points?

- a)  $f(x) = -|x - 1| - 2$
- b)  $f(x) = |x + 1| + 2$
- c)  $f(x) = -|x - 1| + 2$
- d)  $f(x) = |x - 1| + 2$

29.

$$f(x) = |x + 1| - 8$$

Identify the transformation of the equation.

- a) Reflect/Left 1/Down 8       b) Left 1 /Down 8  
 c) Right 1/Down 8       d) Reflect/Right 1/ Down 8

30.

$$y = |x - 3| + 5$$

What are the a, h, and k of the equation?

- a) a = 1, h = 3, k = 5       b) a = 1, h = -3,  
k = -5  
 c) a = -1, h = 3,  
k = 5       d) a = -1, h = -3,  
k = -5

31.

$$f(x) = -3|x| + 1$$

Describe the transformations of the absolute value equation.

- a) Flips to A shape, compresses wider, shifts right 1 unit       b) Flips to A shape, compresses wider, shifts up 1 unit  
 c) Flips to A shape, stretches more narrow, shifts up 1 unit

32.

$$f(x) = \frac{1}{5}|x| - 4$$

Describe the transformation from the Absolute Value Parent Function.

- a) Stretches more narrow, shifts up 4 units       b) Stretches more narrow, shifts down 4 units  
 c) Compresses wider, shifts down 4 units

33. Compare the equations  $f(x) = 12|x| + 2$  and  $g(x) = 6|x| - 2$ . Which best describes the transformation(s) from  $f(x)$  to  $g(x)$ ?
- a) Vertical shift down 2, Vertical Compression  b) Vertical shift up 4, Vertical Stretch by 2 by 1/2
- c) Vertical shift down 4, Vertical Compression  d) Vertical compression by 1/2 by 1/2

34. Write an absolute value function given the following transformations:  
Vertical Stretch of 2  
Horizontal shift left 1 unit  
Vertical shift down 9 units
- a)  $f(x) = |2x + 1| - 9$   b)  $f(x) = |2x - 1| - 9$
- c)  $f(x) = 2|x + 1| - 9$   d)  $f(x) = 2|x - 1| - 9$

35. Write an absolute value function given the following transformations: Reflection across the x-axis  
Horizontal shift right 2 units  
Vertical shift down 7 units
- a)  $y = -|x + 2| - 7$   b)  $y = |x - 2| - 7$
- c)  $y = -|x - 2| - 7$   d)  $y = -|x - 2| + 7$

36. Which of the following describes the horizontal and vertical translations of the following functions:  $f(x) = |x + 4| - 9$
- a) Left 4 up 9  b) Left 4 Down 9
- c) Right 4 up 9

37. Solve for y, then determine the slope of the line for  $x - 4y = 24$ ?
- a) -6  b) 1/4
- c) -1/4  d) 4
- e) 6

<https://quizizz.com/print/quiz/5f84802657b1e2001b28e37f>

$x - 4y = 24$

$x - 4y = 24$

$-x \quad -x$

$-4y = -x + 24$

$\frac{-4y}{-4} = \frac{-x + 24}{-4}$

$y = \frac{-x}{-4} + \frac{24}{-4}$

$y = \frac{1}{4}x - 6$

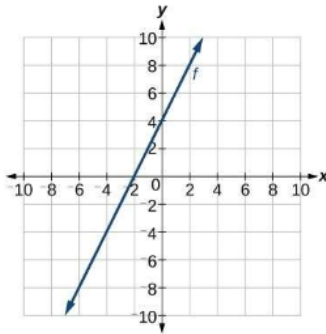
slope  $\uparrow$  y-intercept

$m = \frac{1}{4}$   $b = -6$

$(0, -6)$

divide side entire side separate

38.



Given the graph above, which equation shifts line down 5 units?

- a)  $y = 4x - 1$ 
 b)  $y = 2x - 6$   
 c)  $y = 4x - 6$ 
 d)  $y = 2x - 1$

39. Compare the equations  $f(x) = 12x + 2$  and  $g(x) = 6x - 2$ .

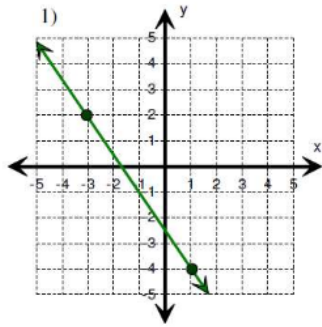
Which best describes the transformation(s) from  $f(x)$  to  $g(x)$ ?

- a) Vertical shift down 2, less steep slope
  b) Vertical shift up 4, double the slope  
 c) Vertical shift down 4, half the slope
  d) Steeper by 2

40. What are the steps for graphing a line?

- a) 1. Plot y-intercept  
 2. count slope ratio plot second point  
 3. Draw the line.  
 b) 1. Make a table  
 2. Plot slope  
 3. Draw line  
 c) 1. Plot two points  
 2. Check slope  
 3. Draw line  
 d) 1. Draw line  
 2. Hope it is right

41.



Find the slope

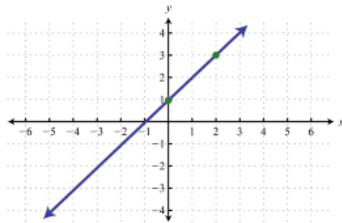
a)  $-2/3$

b)  $3/2$

c)  $-3/2$

d)  $2/3$

42.



What is the y-intercept of this graph?

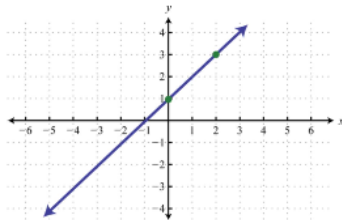
a) 1

b) -2

c) 0

d) 3

43.



What is the y-intercept of this graph?

a) 1

b) -2

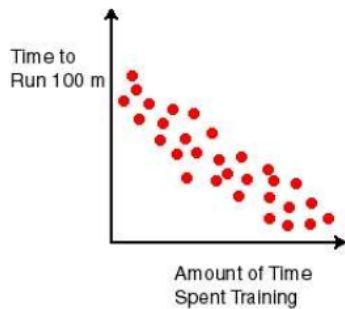
c) 0

d) 3

44. Determine the slope of the line for  $y = -\frac{1}{4}x - 6$

- a) -6
- b) 1/4
- c) -1/4
- d) 4
- e) 6

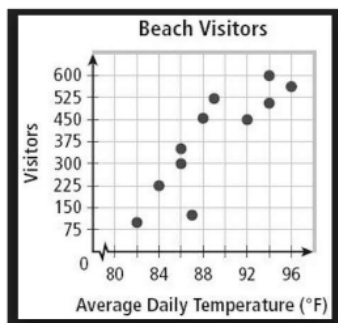
~~45.~~



Which sentence describes the relationship shown on this scatter plot?

- a) The more time spent training, the longer it takes to run 100 m.
- b) As the time spent training increases, the time to run 100 m decreases.
- c) As the time spent training decreases, the time to run 100 m decreases.

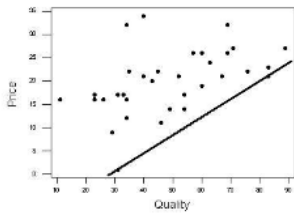
~~46.~~



Which sentence describes the relationship shown on this scatterplot?

- a) As the temperature decreases, the visitors increase.
- b) As the temperature increases, the number of visitors increases.
- c) As the visitors increase, the temperature decreases.
- d) No correlation

47.



Select the statement that best describes the line.

- a) The line is the line of best fit.
- b) The line is NOT a line of best fit because it does not pass through two points.
- c) The line is NOT a line of best fit because it does not go through the middle of the data set.
- d) The line is NOT a line of best fit because it does not go through the origin.

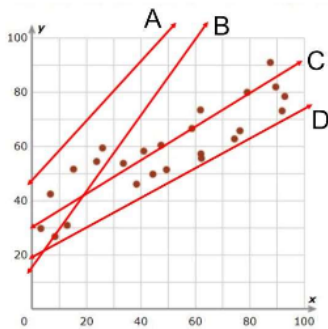
48.



The red line represents the line of best fit for the scatter plot. How many ice cream sales are expected if the temperature is 90°?

- a) 55
- b) 0
- c) 103
- d) 100

49.



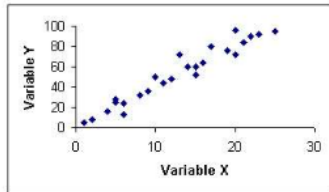
Which of the following lines represents the line of best fit for the scatter plot?

- a) A
- b) B
- c) C
- d) D

50. What is a line of best fit used for?

- a) To make predictions
- b) To make the graph look pretty
- c) To connect the points
- d) To make it look like you know what you are doing

51.



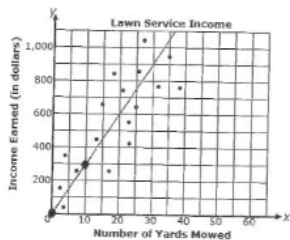
What type of association (correlation) does this graph have?

- a) positive
- b) negative
- c) none
- d) all of the above

52. What would be the correlation between study time and test grades?

- a) positive
- b) negative
- c) none
- d) cannot be determined

53.

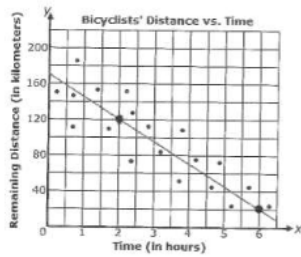


What is the equation of the line of best fit?

- a)  $y = 3/2x$
- b)  $y = 30x$
- c)  $y = 30x + 300$
- d)  $y = 3/2x + 300$



54.



What is the equation of the line of best fit?

- a)  $y = -25x + 170$
- b)  $y = -5/8x + 170$
- c)  $y = 25x + 170$
- d)  $y = 5/8x + 170$

55. What is the slope of the line  $x - 4y = 24$ ?

- a) -6
- b) 1/4
- c) -1/4
- d) 4
- e) 6

56. The cost of renting a bike is \$8 for the first hour and \$3 for each additional hour. Which of the following represents this situation, where  $C$  is the cost of renting the bike for  $h$  hours?

- a)  $C = 11h$
- b)  $C = 8h + 3$
- c)  $C = 8 + 3h$
- d)  $C = 3(h - 1) + 8$

57.  $|-4 + 5x| = 16$

- a)  $\{16/5, 12/5\}$
- b)  $\{4, -5\}$
- c)  $\{-12/5, 4\}$
- d) 4

Case 1  
 $-4 + 5x = 16$

Case 2  
 $-4 + 5x = -16$

58.  $|v + 8| - 5 = 2$

- a)  $\{-1, -15\}$
- b)  $\{-1, -5\}$
- c)  $\{-15, 15\}$
- d) No Solution

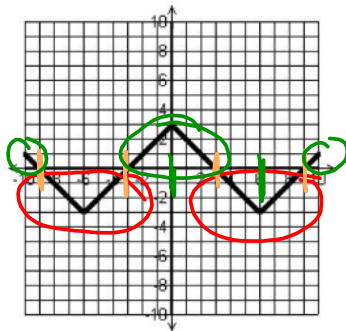
$\rightarrow |v + 8| = 7$   
 Case 1:  $v + 8 = 7$   
 Case 2:  $v + 8 = -7$

59.  $|v + 8| - 5 = 2$

- a)  $\{-1, -15\}$
- c)  $\{-15, 15\}$

- b)  $\{-1, -5\}$
- d) No Solution

60.



On what intervals of  $x$  is  $f(x)$  negative? (select all answers)

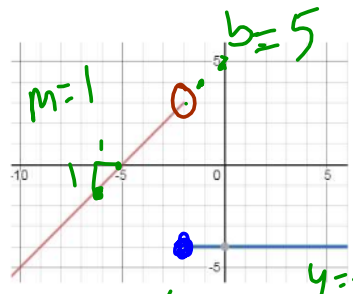
*negative y values below x axis*

- a)  $-9 < x < -3$
- c)  $x \leq -6$

- b)  $3 < x < 9$
- d)  $0 \leq x \leq 6$

*Where is f(x) positive?  
 $-3 < x < 3$   
 $x < 9$  and  $x > 9$*

61.



Which of the piecewise functions matches this graph?

*$y = m x + b$   
 $y = 1x + 5$*

a)  $f(x) = \begin{cases} x + 5 & \text{if } x < -2 \\ -4 & \text{if } x \geq -2 \end{cases}$

b)  $f(x) = \begin{cases} 2x + 1 & \text{if } x < 1 \\ -2x + 3 & \text{if } x \geq 1 \end{cases}$

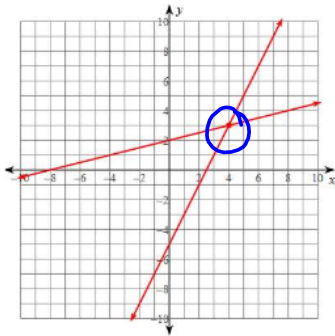
c)  $f(x) = \begin{cases} -2x - 4 & \text{if } x \leq 2 \\ 4x - 9 & \text{if } x > 2 \end{cases}$

d)  $f(x) = \begin{cases} x - 1 & \text{if } x \leq -2 \\ 2x - 1 & \text{if } -2 < x \leq 4 \\ -3x + 8 & \text{if } x > 4 \end{cases}$

*horizontal lines are y = #*



66.

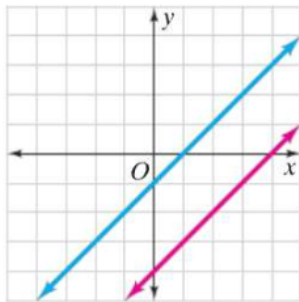


The solution is:

- a) (4, 3)
- c) (-4, 3)

- b) (3, 4)
- d) No solution

67.



How many solutions?

no intersection

- a) One Solution
- c) Infinitely Many Solutions

- b) No solution

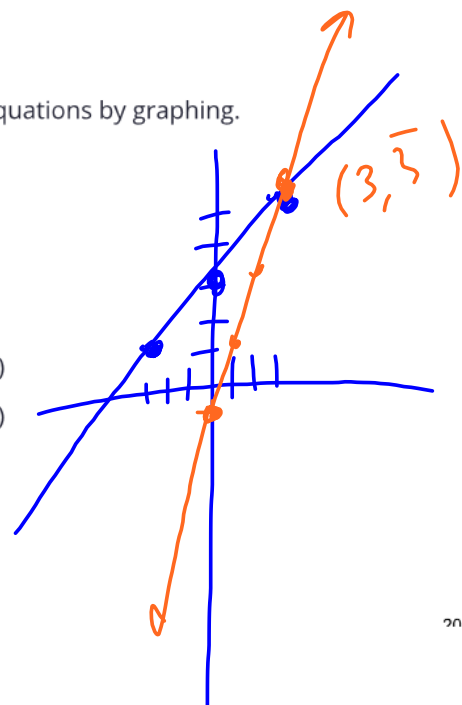
68.

$$\begin{cases} y = \frac{2}{3}x + 3 \\ y = 2x - 1 \end{cases}$$

Solve the system of equations by graphing.

- a) (4, 7)
- c) (6, 7)

- b) (3, 5)
- d) (5, 3)



69.

$$\begin{cases} x = -3 \\ y = \frac{4}{3}x + 2 \end{cases}$$

Solve the system of equations by graphing.

 a) (-3, 2) b) (-3, 6) c) (-3, -2) d) (-3, -6)

70.

$$\begin{cases} y = 2 \\ y = \frac{5}{2}x - 3 \end{cases}$$

Solve the system of equations by graphing.

 a) (2, 2) b) (2, 5) c) (5, 2) d) Infinitely Many Solutions

71.

$$\begin{cases} 3x + 3y = -6 \\ 4y = -4x + 16 \end{cases}$$

Solve the system of equations by graphing.

 a) No Solution b) (-1, -1) c) (-2, 0) d) (0, -2)

72.

$$\begin{cases} 3x - y = -4 \\ 2y = 6x + 2 \end{cases}$$

Solve the system of equations by graphing.

 a) No Solution b) Infinitely Many Solutions c) (-1, 1) d) (-2, -2)

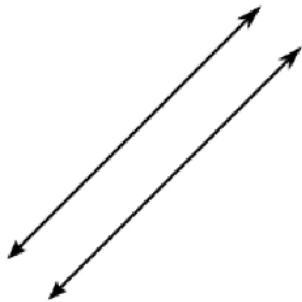
73. How can you tell if a point is a solution to a system?

- a) It makes the first equation true.
- b) The  $(x,y)$  coordinates satisfy both equations
- c) It makes logical sense
- d) It makes neither equation negative

74. What is the first step in solving a system by graphing?

- a) Write both linear equations in slope-intercept form
- b) Get  $x$  by itself
- c) Compare the slopes of both equations
- d) Write both equations in standard form

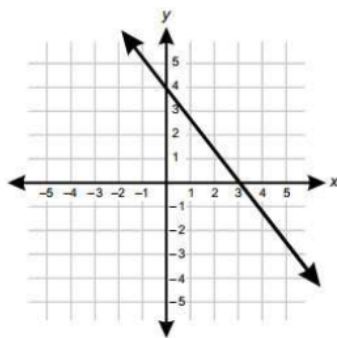
75.



Parallel Lines never intersect because...

- a) they have the same slopes.
- b) they have the same  $y$ -intercept.
- c) they have different slopes.
- d) they have different  $y$ -intercepts.

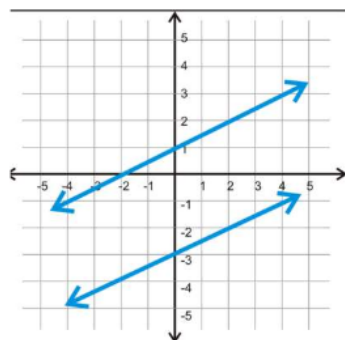
76.



When you graph the exact same equation twice,

- a) you will have no solution.
- b) you will have one solution.
- c) you will have infinite solutions.
- d) you will graph a giraffe.

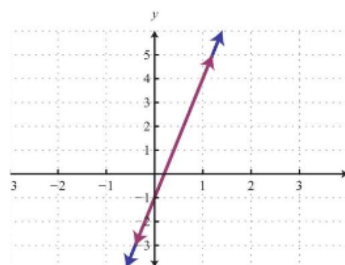
77.



How many solutions will this system have?

- a) No solution
- b) One Solution
- c) I Don't Know
- d) Infinitely Many Solutions

78.



How many solutions will this system have?

- a) No Solution
- b) Infinitely Many Solutions
- c) No Clue
- d) One solution

79. If a system of equations has no solution, what does the graph look like?

- a) intersecting lines
- b) parallel lines
- c) skew lines
- d) intersecting lines

## Answer Key

- |       |       |         |       |
|-------|-------|---------|-------|
| 1. b  | 21. a | 41. c   | 61. a |
| 2. d  | 22. b | 42. a   | 62. a |
| 3. c  | 23. c | 43. a   | 63. d |
| 4. a  | 24. b | 44. c   | 64. b |
| 5. c  | 25. c | 45. b   | 65. d |
| 6. b  | 26. c | 46. b   | 66. a |
| 7. a  | 27. b | 47. c   | 67. b |
| 8. a  | 28. b | 48. a   | 68. b |
| 9. c  | 29. b | 49. c   | 69. c |
| 10. b | 30. a | 50. a   | 70. a |
| 11. b | 31. c | 51. a   | 71. a |
| 12. c | 32. c | 52. a   | 72. a |
| 13. b | 33. c | 53. b   | 73. b |
| 14. d | 34. c | 54. a   | 74. a |
| 15. a | 35. c | 55. b   | 75. a |
| 16. a | 36. b | 56. d   | 76. c |
| 17. d | 37. b | 57. c   | 77. a |
| 18. c | 38. d | 58. a   | 78. b |
| 19. a | 39. c | 59. a   | 79. b |
| 20. c | 40. a | 60. a,b |       |



Lesson 1.2 Absolute Value Functions Transformations Review		
<p>90. <math>\frac{3}{2} x-4 +2=d</math></p> <p>This equation will have exactly 1 solution if <math>d=2</math></p> <p>(hint: give a very specific value of d)</p>	<p>91. <math>\frac{3}{2} x-4 +2=p</math></p> <p>This equation will have exactly 2 solutions if <math>p &gt; 2</math></p> <p>(hint: give a very specific inequality related to p)</p>	<p>92. <math>\frac{3}{2} x-4 +2=q</math></p> <p>This equation will have exactly 0 solutions if <math>q &lt; 2</math></p> <p>(hint: give a very specific inequality related to q)</p>
<p>93. <math>-\frac{3}{4} x+8 -4=v</math></p> <p>This equation will have exactly 1 solution if <math>v = -4</math></p> <p>(hint: give a very specific value of v)</p>	<p>94. <math>-\frac{3}{4} x+8 -4=w</math></p> <p>This equation will have exactly 2 solutions if <math>w &lt; -4</math></p> <p>(hint: give a very specific inequality related to w)</p>	<p>95. <math>-\frac{3}{4} x+8 -4=r</math></p> <p>This equation will have exactly 0 solutions if <math>r &gt; -4</math></p> <p>(hint: give a very specific inequality related to r)</p>

Absolute Value bars = 0  
 Absolute Value bars = positive #  
 Absolute Value bars = negative

$$\frac{3}{2}|x-4|+2=d$$

$$\frac{3}{2}|x-4| = d-2$$

$$|x-4| = \frac{2}{3}(d-2)$$

Solve for d

$$\frac{2}{3}(d-2) = 0$$

$$d-2 = 0$$

$$d = 2$$

$$\frac{3}{2}|x-4|+2=p$$

$$|x-4| = \frac{2}{3}(p-2)$$

$$\frac{2}{3}(p-2) > 0$$

$$p-2 > 0$$

$$p > 2$$

$$-\frac{3}{4}|x+8|-4=v$$

$$-\frac{3}{4}|x+8| = v+4$$

$$-\frac{4}{3} \cdot \left(-\frac{3}{4}|x+8|\right) = (v+4) \cdot \frac{4}{3}$$

$$|x+8| = \frac{4}{3}(v+4)$$

One Solution  $\left\{ \begin{array}{l} 2 \text{ solutions} \\ \text{No Solution} \end{array} \right.$

$$-\frac{4}{3}(v+4) = 0$$

$$\frac{4}{3}(v+4) > 0$$

$$\frac{4}{3}(v+4) < 0$$

$$v+4 < 0$$

97. Solve  $\frac{3}{2}|x - 4| + 2 = 23$

98. Solve  $\frac{-3}{4}|x + 8| - 4 = 17$

99. Solve  $5|x + 6| + 2 = 2$

$$5|x + 6| = 0$$

100. Solve  $-6|x - 9| - 4 = -28$

$$\begin{array}{r} +4 +4 \\ \hline -6|x - 9| = -24 \\ \hline -6 \quad -6 \\ \hline |x - 9| = 4 \end{array}$$

Case 1

Case 2

$$x - 9 = 4$$

$$x - 9 = -4$$

$$x = 13$$

$$x = 5$$

$$x \in \{13, 5\}$$

just 13 and 5

Note:  $(13, 5]$   
interval  
everything  
between

<p>78. Which of the following functions has the greatest vertical stretch?</p> <p>a. <math>f(x) = -x^2</math>  b. <math>g(x) = \sqrt{-x} + 2</math>  c. <math>h(x) = -\frac{5}{3}(x + 6)^2 - 3</math>  d. <math>f(x) = \frac{3}{2} x - 4  + 2</math></p> <p>79. Explain your reason for selection of your answer in previous question</p>	<p>80. Which of the following functions has the no vertical stretch?</p> <p>a. <math>f(x) = -x^2</math>  b. <math>g(x) = \sqrt{-x} + 2</math>  c. <math>h(x) = -\frac{5}{3}(x + 6)^2 - 3</math>  d. <math>f(x) = \frac{3}{2} x - 4  + 2</math></p> <p>81. Explain your reason for selection of your answer in previous question</p> <p><i>Vert Refl</i>  <i>horiz Refl</i>  <math> a  = 5</math>  <math> a  = \frac{3}{2}</math></p>
<p>82. Which of the following functions has the greatest vertical shift?</p> <p>a. <math>f(x) = -x^2</math>  b. <math>g(x) = \sqrt{-x} + 2</math>  c. <math>h(x) = -\frac{5}{3}(x + 6)^2 - 3</math>  d. <math>f(x) = \frac{3}{2} x - 4  + 2</math></p> <p>83. Explain your reason for selection of your answer in previous question</p>	<p>84. Which of the following functions has the greatest horizontal shift?</p> <p>a. <math>f(x) = -x^2</math>  b. <math>g(x) = \sqrt{-x} + 2</math>  c. <math>h(x) = -\frac{5}{3}(x + 6)^2 - 3</math>  d. <math>f(x) = \frac{3}{2} x - 4  + 2</math></p> <p>85. Explain your reason for selection of your answer in previous question</p>
<p>86. Which of the following functions has the greatest vertical compression?</p> <p>a. <math>f(x) = -x^2</math>  b. <math>g(x) = \sqrt{-x} + 2</math>  c. <math>h(x) = -\frac{5}{3}(x + 6)^2 - 3</math>  d. <math>f(x) = \frac{3}{2} x - 4  + 2</math></p> <p>87. Explain your reason for selection of your answer in previous question</p>	<p>88. Which of the following functions has the greatest horizontal stretch?</p> <p>a. <math>f(x) = -x^2</math>  b. <math>g(x) = \sqrt{-x} + 2</math>  c. <math>h(x) = -\frac{5}{3}(x + 6)^2 - 3</math>  d. <math>f(x) = \frac{3}{2} x - 4  + 2</math></p> <p>89. Explain your reason for selection of your answer in previous question</p>

Name \_\_\_\_\_ 2020 midterm study guide this is due at 5:00pm on wednesday

### Lesson 1.2 Absolute Value and Piecewise Functions Review

	<p>1. State the domain and range of this function</p> <p>a. Domain <i>(leftmost x, rightmost x)</i> <math>x \in (-\infty, \infty)</math></p> <p>b. Range <i>(lowest y, highest y)</i> <math>y \in [0, \infty)</math></p> <p>2. Is this a parent function or a transformation? <i>Parent</i></p> <p>3. State the function's equation <math>y =  x </math></p> <p>4. Circle any transformations that apply <del>shift left shift right shift up shift down vertical stretch vertical compression horizontal stretch horizontal compression vertical reflection horizontal reflection</del></p>
	<p>5. State the domain and range of this function</p> <p>a. Domain <math>x \in (-\infty, \infty)</math></p> <p>b. Range <math>y \in [0, \infty)</math></p> <p>6. Is this a parent function or a transformation? <i>Transformation</i></p> <p>7. State the function's equation <math>y = 2 x - 0  + 0</math></p> <p>8. Circle any transformations that apply shift left shift right shift up shift down vertical stretch vertical compression horizontal stretch <u>horizontal compression</u> vertical reflection horizontal reflection</p>

*a is slope*