Multiple Choice Distractors:

Multiple Choice Practice:

1. Which graph represents the solution to: $-2x-1>-13$

$-2x > -12$
$x < 6$

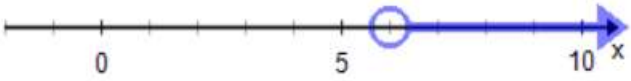
Which do you think is the best "distractor?" Why?

a.

b.

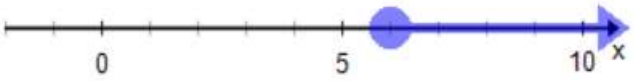
← good distractor...closed O

c.



← good distractor...no sign flip

d.



e. None of the above

2. Given the function: f(x) = 2x – 5. Find x when f(x) = 9.

a. f (9) = 13

$9 = 2x-5$
$14 = 2x$
$7 = x$

good distractor if you plug in 9 for x

b. x = 13

c. x = 7

d. x = 2

e. No solution

3. Simplify: $9-3(4-7)^2+5$

$9-3(-3)^2+5$
$9-3(9)+5$
$9-27+5$
$-18+5$
-13

$6(-3)^2+5$
$6(9)+5$
59

$9+27+5$
41

$6(-9)+5$
-49

* a. 41

b. -13

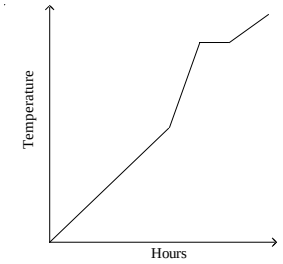
* c. -49

* d. 59

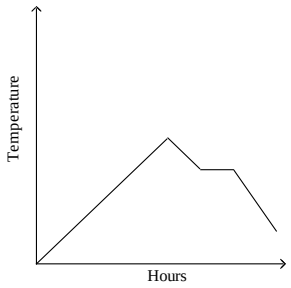
e. No solution

4. Temperature changes throughout the hours of a day. Early in the morning, temperature increases slowly. At noon, the temperature rises sharply. During the afternoon, the temperature stays the same for several hours. As night falls, the temperature decreases slightly. Choose the graph that best represents this situation.

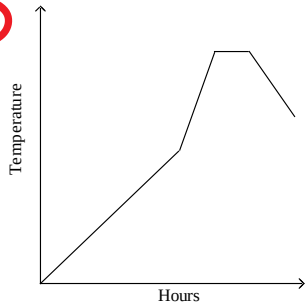
a.



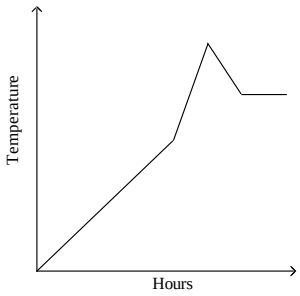
b.



c.



d.



5. Solve: $-4x^2 + 25 = 9$

a. x = 2

b. x = -2

c. x = 2 or -2

d. x = 4

e. No solution

$-4x^2 = -16$

$x^2 = 4$

$x = \pm 2$

common distractor

6. $3 - 5|x+1| = -12$

a. x = 5

b. x = 2

c. x = 5 or -7

d. x = 2 or - 4

e. No solution

$-5|x+1| = -15$

$|x+1| = 3$

$x = 2, -4$

xwrong

$-2|x+1| = -12$

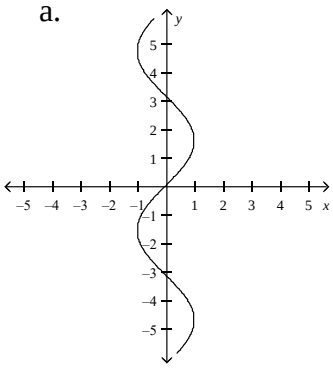
$|x+1| = 6$

$x = 5, -7$

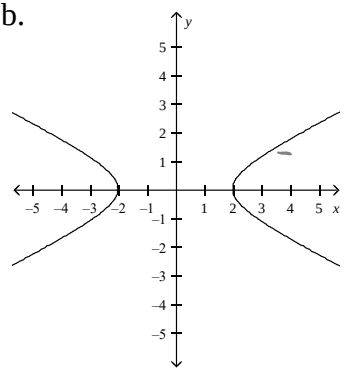
All good distractors

7. Which of the following graphs represents a function?

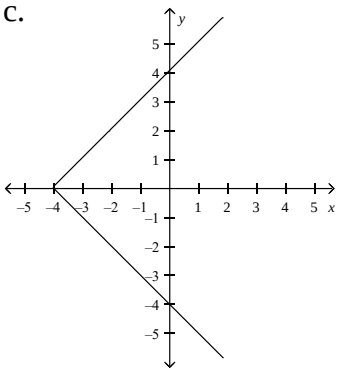
a.



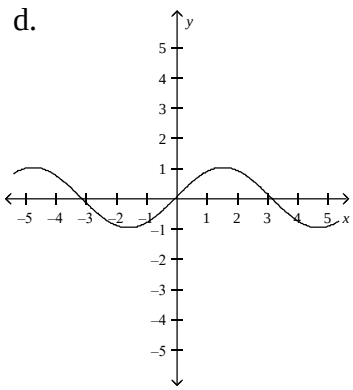
b.



c.



d.



Extra Practice (optional)

1. Find the slope of the line that passes through (-3,5) and (6,8)

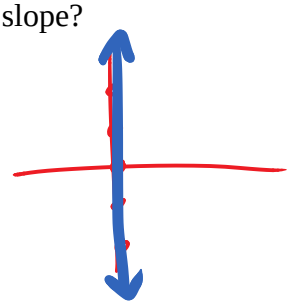
$m = \frac{8-5}{6-(-3)} = \frac{3}{9} = \boxed{\frac{1}{3}}$

2. Find the slope of the line that passes through the points: (-2, 7) and (5, 7). Is the line horizontal, vertical, or diagonal?

$m = \frac{7-7}{5+2} = \frac{0}{7} = \boxed{0}$ horizontal

3. Which line has an undefined slope?

a. y = 0
b. x = 0
c. y = 2x
d. 3x + 2y = 0



4. State the point and slope in the following equation: y – 7 = 4(x – 9)

pt: (9, 7)

slope = 4

5. Find the x and y intercepts of the graph: -2x + 7y = 28

x int: (-14, 0)

y int: (0, 4)

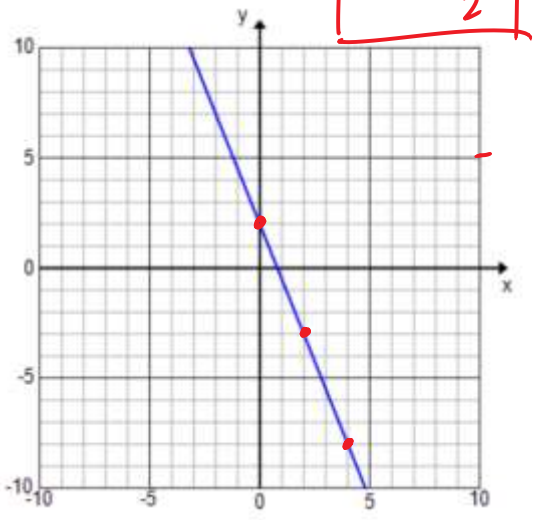
6. Find the x and y intercepts: $y = 2x - 11$

x int: $(11/2, 0)$

y int: (0, -11)

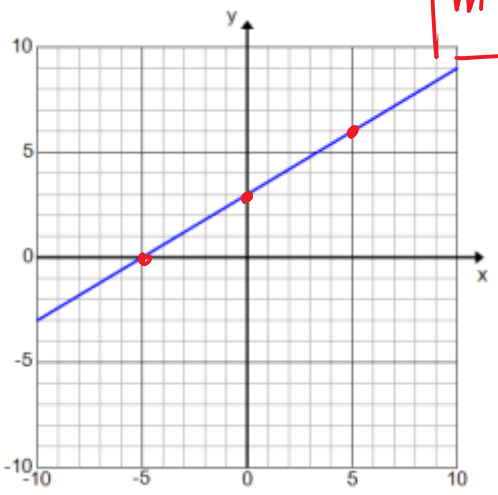
7. Find the slope of the line:

$m = \frac{-5}{2}$



8. Find the slope of the line:

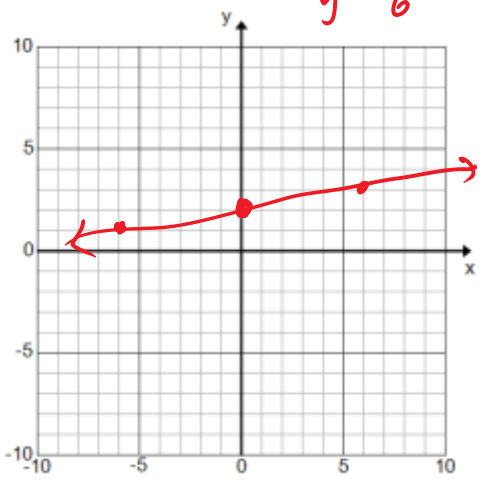
$m = \frac{3}{5}$



9. Graph: $3y = \frac{1}{2}x + 6$

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

$y = \frac{1}{6}x + 2$

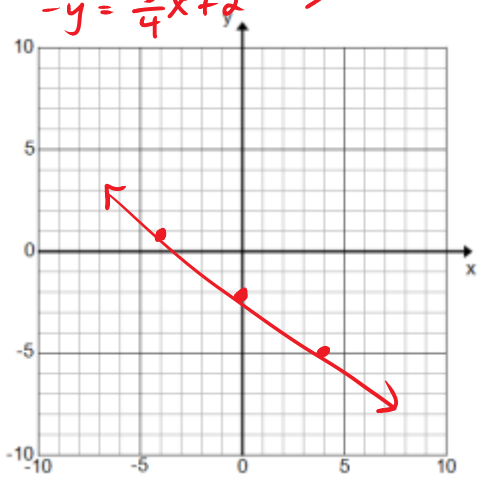


10. Graph: $5 - y = \frac{3}{4}x + 7$

$-5 \quad -5$

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

$y = -\frac{3}{4}x - 2$



11. Is the point (-2, 5) a solution to the equation 3x – y = - 11

$3(-2) - 5 = -11$

$-6 - 5 = -11$

$-11 = -11$ yes!