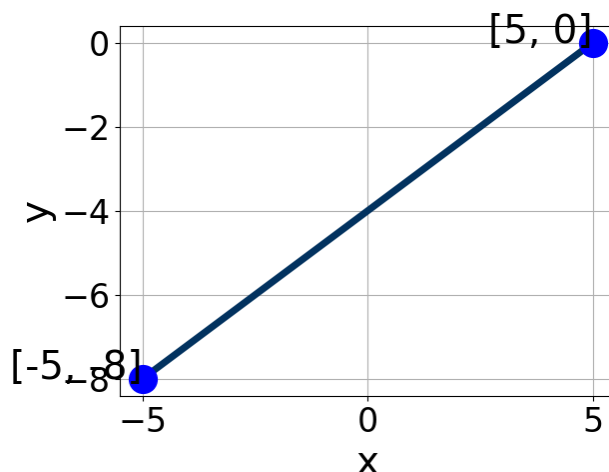


1. Write the equation of the line in the graph below in Standard form  $Ax + By = C$ . Then, choose the intervals that contain  $A$ ,  $B$ , and  $C$ .



- A.  $A \in [-3.8, 0.2]$ ,  $B \in [-1, 0]$ , and  $C \in [3, 5]$   
 B.  $A \in [0, 8]$ ,  $B \in [-11, -4]$ , and  $C \in [20, 21]$   
 C.  $A \in [-4, -3]$ ,  $B \in [5, 8]$ , and  $C \in [-20, -19]$   
 D.  $A \in [0, 8]$ ,  $B \in [5, 8]$ , and  $C \in [-20, -19]$   
 E.  $A \in [-3.8, 0.2]$ ,  $B \in [1, 4]$ , and  $C \in [-6, -1]$

2. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{3x + 9}{2} - \frac{-7x + 7}{6} = \frac{5x + 3}{3}$$

- A.  $x \in [-7.3, -3.5]$   
 B.  $x \in [-4.3, -0.6]$   
 C.  $x \in [0.4, 2.9]$   
 D.  $x \in [-1.5, -0.2]$   
 E. There are no real solutions.

3. Solve the equation below. Then, choose the interval that contains the

solution.

$$-2(-6x + 11) = -3(-7x - 4)$$

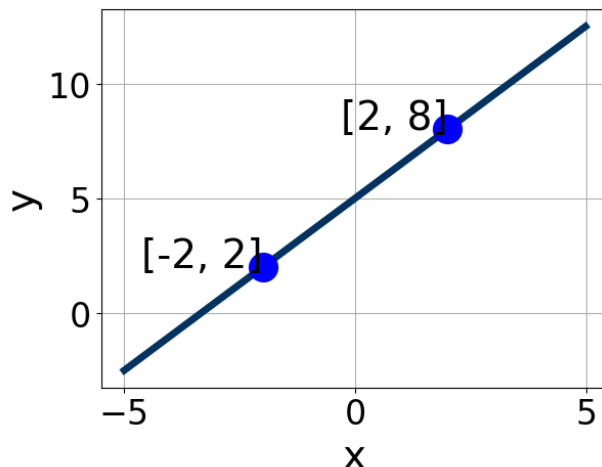
- A.  $x \in [-2.2, -0.5]$
- B.  $x \in [-0.1, 0.8]$
- C.  $x \in [-4.2, -3]$
- D.  $x \in [0.9, 2.1]$
- E. There are no real solutions.

4. Find the equation of the line described below. Write the linear equation as  $y = mx + b$  and choose the intervals that contain  $m$  and  $b$ .

Parallel to  $5x + 4y = 3$  and passing through the point  $(3, 4)$ .

- A.  $m \in [-1.4, -0.9]$   $b \in [-8.88, -7.26]$
- B.  $m \in [0.6, 1.57]$   $b \in [-0.57, 0.55]$
- C.  $m \in [-0.82, -0.39]$   $b \in [7.47, 8.06]$
- D.  $m \in [-1.4, -0.9]$   $b \in [0.62, 1.33]$
- E.  $m \in [-1.4, -0.9]$   $b \in [7.47, 8.06]$

5. Write the equation of the line in the graph below in Standard form  $Ax + By = C$ . Then, choose the intervals that contain  $A$ ,  $B$ , and  $C$ .



- A.  $A \in [1.8, 5.8]$ ,  $B \in [1.84, 2.16]$ , and  $C \in [9.3, 10.3]$
  - B.  $A \in [1.8, 5.8]$ ,  $B \in [-2.42, -1.69]$ , and  $C \in [-12.8, -7.6]$
  - C.  $A \in [-3.3, -2.8]$ ,  $B \in [1.84, 2.16]$ , and  $C \in [9.3, 10.3]$
  - D.  $A \in [-2.6, 0.7]$ ,  $B \in [-1.1, 0.01]$ , and  $C \in [-5.6, -1.5]$
  - E.  $A \in [-2.6, 0.7]$ ,  $B \in [0.99, 1.4]$ , and  $C \in [3.2, 6.4]$
- 

6. First, find the equation of the line containing the two points below. Then, write the equation as  $y = mx + b$  and choose the intervals that contain  $m$  and  $b$ .

$(2, -3)$  and  $(5, 6)$

- A.  $m \in [1, 7]$   $b \in [1, 5]$
  - B.  $m \in [1, 7]$   $b \in [-10, -8]$
  - C.  $m \in [1, 7]$   $b \in [-6, -4]$
  - D.  $m \in [1, 7]$   $b \in [5, 15]$
  - E.  $m \in [-5, -1]$   $b \in [19, 27]$
- 

7. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{9x - 5}{6} - \frac{-8x + 7}{4} = \frac{3x + 9}{2}$$

- A.  $x \in [1.43, 2.09]$
  - B.  $x \in [10.11, 11.01]$
  - C.  $x \in [3.26, 4.15]$
  - D.  $x \in [0.28, 1.05]$
  - E. There are no real solutions.
-

8. Solve the equation below. Then, choose the interval that contains the solution.

$$-17(-12x + 4) = -13(-10x - 16)$$

- A.  $x \in [-1.6, 1.3]$
  - B.  $x \in [1.5, 2.1]$
  - C.  $x \in [-2.6, -0.8]$
  - D.  $x \in [2.2, 5.7]$
  - E. There are no real solutions.
- 

9. Find the equation of the line described below. Write the linear equation as  $y = mx + b$  and choose the intervals that contain  $m$  and  $b$ .

Parallel to  $4x + 9y = 6$  and passing through the point  $(-7, 7)$ .

- A.  $m \in [-1.29, -0.13]$   $b \in [13, 18]$
  - B.  $m \in [-1.29, -0.13]$   $b \in [2.89, 4.89]$
  - C.  $m \in [-1.29, -0.13]$   $b \in [-6.89, 3.11]$
  - D.  $m \in [0.05, 1.31]$   $b \in [8.11, 13.11]$
  - E.  $m \in [-3.06, -2.1]$   $b \in [2.89, 4.89]$
- 

10. First, find the equation of the line containing the two points below. Then, write the equation as  $y = mx + b$  and choose the intervals that contain  $m$  and  $b$ .

$(8, 5)$  and  $(6, -10)$

- A.  $m \in [-1.5, 9.5]$   $b \in [-55, -53]$
  - B.  $m \in [-1.5, 9.5]$   $b \in [53, 58]$
  - C.  $m \in [-1.5, 9.5]$   $b \in [-3, -2]$
  - D.  $m \in [-7.5, -3.5]$   $b \in [29, 40]$
  - E.  $m \in [-1.5, 9.5]$   $b \in [-18, -15]$
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