

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

$$-11(-9x - 19) = -13(5x - 8)$$

- A.  $x \in [1, 2]$
  - B.  $x \in [-2.9, -0.7]$
  - C.  $x \in [-1, 0.1]$
  - D.  $x \in [-9.6, -8.9]$
  - E. There are no real solutions.
- 

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

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

- A.  $x \in [-0.4, 2]$
  - B.  $x \in [-15.4, -13.7]$
  - C.  $x \in [-1.9, -0.1]$
  - D.  $x \in [-2.6, -2]$
  - E. There are no real solutions.
- 

3. 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  $9x + 7y = 6$  and passing through the point  $(-7, -7)$ .

- A.  $m \in [-2.13, -1.25]$   $b \in [-17.7, -15.5]$
  - B.  $m \in [-2.13, -1.25]$   $b \in [-1.3, 0.5]$
  - C.  $m \in [-1.05, -0.64]$   $b \in [-17.7, -15.5]$
  - D.  $m \in [1.24, 1.65]$   $b \in [1.7, 5.3]$
  - E.  $m \in [-2.13, -1.25]$   $b \in [15.2, 16.2]$
-

4. 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  $b$ .

$$(-10, -7) \text{ and } (6, -2)$$

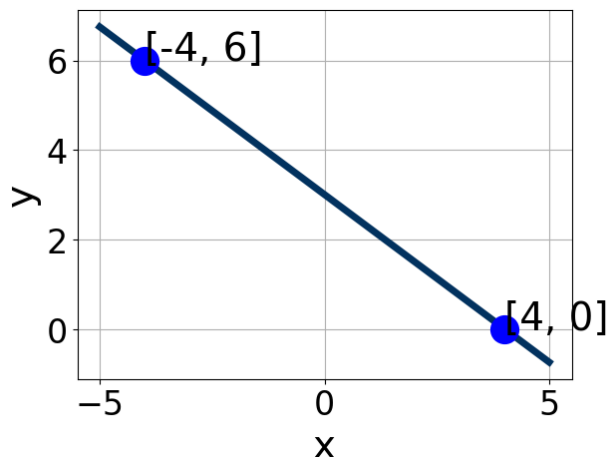
- A.  $m \in [0.2, 4.9]$   $b \in [-4.54, -3.33]$
  - B.  $m \in [0.2, 4.9]$   $b \in [3.15, 3.98]$
  - C.  $m \in [-3.7, -0.1]$   $b \in [-0.67, 0.5]$
  - D.  $m \in [0.2, 4.9]$   $b \in [-8.11, -7.45]$
  - E.  $m \in [0.2, 4.9]$   $b \in [2.91, 3.11]$
- 

5. 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  $b$ .

$$(9, 5) \text{ and } (-10, 10)$$

- A.  $m \in [0.08, 0.81]$   $b \in [9.5, 14.1]$
  - B.  $m \in [-0.41, -0.19]$   $b \in [-9.5, -7]$
  - C.  $m \in [-0.41, -0.19]$   $b \in [7.2, 10.5]$
  - D.  $m \in [-0.41, -0.19]$   $b \in [18.4, 22.6]$
  - E.  $m \in [-0.41, -0.19]$   $b \in [-4.9, -1.8]$
- 

6. 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  $C$ .



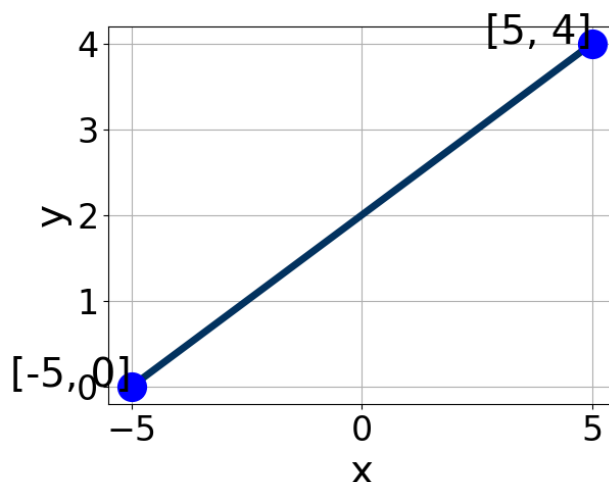
- A.  $A \in [-1.25, 2.75]$ ,  $B \in [-2.5, -0.3]$ , and  $C \in [-4, 0]$
- B.  $A \in [-10, -1]$ ,  $B \in [-4.8, -2.9]$ , and  $C \in [-17, -7]$
- C.  $A \in [2, 6]$ ,  $B \in [1.7, 6.4]$ , and  $C \in [6, 15]$
- D.  $A \in [-1.25, 2.75]$ ,  $B \in [0.5, 2.3]$ , and  $C \in [-1, 6]$
- E.  $A \in [2, 6]$ ,  $B \in [-4.8, -2.9]$ , and  $C \in [-17, -7]$

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

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

- A.  $x \in [-2.47, 0.53]$
- B.  $x \in [-11.76, -4.76]$
- C.  $x \in [0.65, 3.65]$
- D.  $x \in [-32.59, -27.59]$
- E. There are no real solutions.

8. 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.  $A \in [-2.67, -1.99]$ ,  $B \in [4.47, 6.67]$ , and  $C \in [9, 12]$   
 B.  $A \in [-1.02, 0.67]$ ,  $B \in [0.56, 1.7]$ , and  $C \in [-1, 7]$   
 C.  $A \in [1.43, 2.26]$ ,  $B \in [-5.01, -4.02]$ , and  $C \in [-11, -8]$   
 D.  $A \in [1.43, 2.26]$ ,  $B \in [4.47, 6.67]$ , and  $C \in [9, 12]$   
 E.  $A \in [-1.02, 0.67]$ ,  $B \in [-2.26, -0.01]$ , and  $C \in [-3, 1]$

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  $b$ .

Perpendicular to  $5x + 4y = 3$  and passing through the point  $(-5, 2)$ .

- A.  $m \in [0.83, 1.26]$   $b \in [5.73, 6.88]$   
 B.  $m \in [0.52, 0.93]$   $b \in [5.73, 6.88]$   
 C.  $m \in [-0.89, -0.66]$   $b \in [-2.7, -1.71]$   
 D.  $m \in [0.52, 0.93]$   $b \in [-6.63, -5.71]$   
 E.  $m \in [0.52, 0.93]$   $b \in [6.97, 7.65]$

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

$$-12(-17x + 16) = -15(-18x - 13)$$

- A.  $x \in [-5.88, -5.83]$
  - B.  $x \in [-0.06, -0.03]$
  - C.  $x \in [-0.04, 0]$
  - D.  $x \in [0.04, 0.08]$
  - E. There are no real solutions.
-