

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

$$-10(4x + 13) = -3(-19x - 8)$$

- A.  $x \in [0.28, 1.11]$
  - B.  $x \in [-1.38, -1.04]$
  - C.  $x \in [6.02, 6.77]$
  - D.  $x \in [-2.14, -1.5]$
  - E. There are no real solutions.
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2. 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  $b$ .

$$(-11, 10) \text{ and } (-6, 2)$$

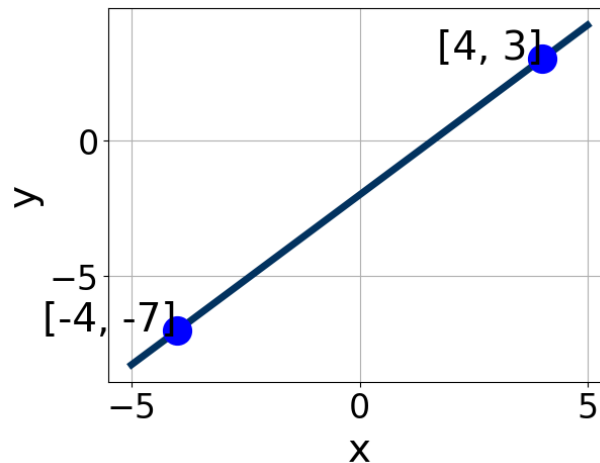
- A.  $m \in [-1.1, 4.8]$   $b \in [11.31, 11.94]$
  - B.  $m \in [-2.3, 0.8]$   $b \in [20.95, 21.07]$
  - C.  $m \in [-2.3, 0.8]$   $b \in [-7.92, -7.56]$
  - D.  $m \in [-2.3, 0.8]$   $b \in [7.98, 8.09]$
  - E.  $m \in [-2.3, 0.8]$   $b \in [7.4, 7.8]$
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3. 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  $9x - 8y = 12$  and passing through the point  $(-8, -5)$ .

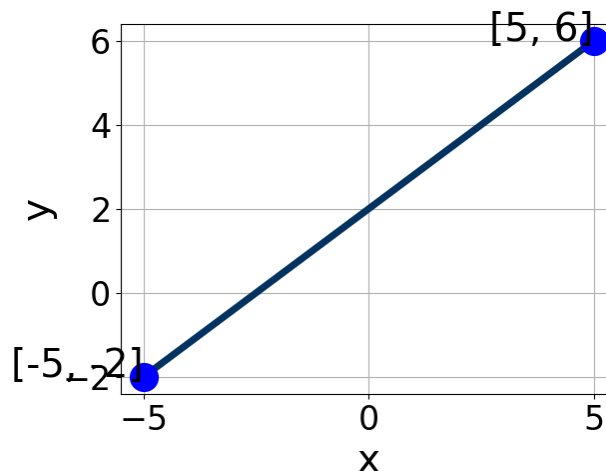
- A.  $m \in [0.91, 1.27]$   $b \in [3.1, 5.4]$
- B.  $m \in [0.91, 1.27]$   $b \in [-5.1, -2.9]$
- C.  $m \in [0.41, 0.98]$   $b \in [3.1, 5.4]$
- D.  $m \in [0.91, 1.27]$   $b \in [-0.3, 3.9]$
- E.  $m \in [-1.35, -0.78]$   $b \in [-14.6, -13.7]$

4. 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.  $A \in [2, 7]$ ,  $B \in [-4.39, -2.68]$ , and  $C \in [3, 14]$
- B.  $A \in [2, 7]$ ,  $B \in [2.73, 4.14]$ , and  $C \in [-10, -4]$
- C.  $A \in [-4.25, -0.25]$ ,  $B \in [0.09, 1.09]$ , and  $C \in [-7, 1]$
- D.  $A \in [-4.25, -0.25]$ ,  $B \in [-1.42, -0.07]$ , and  $C \in [1, 3]$
- E.  $A \in [-10, -3]$ ,  $B \in [2.73, 4.14]$ , and  $C \in [-10, -4]$

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.  $A \in [-0.8, 0.2]$ ,  $B \in [-1.5, 0.1]$ , and  $C \in [-2.2, -0.1]$
- B.  $A \in [4, 8]$ ,  $B \in [2.9, 7.1]$ , and  $C \in [9.6, 10.7]$
- C.  $A \in [-0.8, 0.2]$ ,  $B \in [-0.5, 3]$ , and  $C \in [-0.3, 2.7]$
- D.  $A \in [4, 8]$ ,  $B \in [-6.7, -4.4]$ , and  $C \in [-10.8, -8.7]$
- E.  $A \in [-10, -2]$ ,  $B \in [2.9, 7.1]$ , and  $C \in [9.6, 10.7]$

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

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

- A.  $x \in [2.1, 3.8]$
- B.  $x \in [5.9, 7.7]$
- C.  $x \in [-3.1, -1.4]$
- D.  $x \in [3.5, 5.4]$
- E. There are no real solutions.

7. 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  $5x + 9y = 4$  and passing through the point  $(7, -10)$ .

- A.  $m \in [-1.4, 0.3]$   $b \in [-19, -16]$
- B.  $m \in [-4, -0.7]$   $b \in [-7.11, 1.89]$
- C.  $m \in [-1.4, 0.3]$   $b \in [4.11, 8.11]$
- D.  $m \in [-0.1, 1.1]$   $b \in [-13.89, -10.89]$
- E.  $m \in [-1.4, 0.3]$   $b \in [-7.11, 1.89]$

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

$$-12(9x + 8) = -17(3x - 5)$$

- A.  $x \in [-0.17, 0.04]$
- B.  $x \in [-3.27, -3.07]$
- C.  $x \in [-0.5, -0.15]$
- D.  $x \in [0.17, 0.38]$
- E. There are no real solutions.

9. 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  $b$ .

$$(7, 11) \text{ and } (5, -7)$$

- A.  $m \in [7, 10]$   $b \in [4, 5]$
- B.  $m \in [-10, -8]$   $b \in [37, 39]$
- C.  $m \in [7, 10]$   $b \in [-17, -10]$
- D.  $m \in [7, 10]$   $b \in [52, 57]$
- E.  $m \in [7, 10]$   $b \in [-58, -50]$

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

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

- A.  $x \in [138, 141]$
- B.  $x \in [-18.53, -16.53]$
- C.  $x \in [-2.68, 6.32]$
- D.  $x \in [17.47, 20.47]$
- E. There are no real solutions.