

1. 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  $8x - 9y = 8$  and passing through the point  $(-5, 6)$ .

- A.  $m \in [-1.08, -0.8]$   $b \in [1.42, 1.58]$
  - B.  $m \in [0.47, 1.01]$   $b \in [10.21, 10.85]$
  - C.  $m \in [1.06, 1.31]$   $b \in [10.21, 10.85]$
  - D.  $m \in [0.47, 1.01]$   $b \in [-10.61, -9.48]$
  - E.  $m \in [0.47, 1.01]$   $b \in [10.55, 11.97]$
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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  $b$ .

$(-3, 7)$  and  $(5, -2)$

- A.  $m \in [-3.12, 0.88]$   $b \in [-4.06, -2.99]$
  - B.  $m \in [-3.12, 0.88]$   $b \in [1.14, 4.53]$
  - C.  $m \in [-3.12, 0.88]$   $b \in [-7.14, -6.92]$
  - D.  $m \in [1.12, 10.12]$   $b \in [-8.17, -7.5]$
  - E.  $m \in [-3.12, 0.88]$   $b \in [8.1, 10.9]$
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3. Solve the equation below. Then, choose the interval that contains the solution.

$$-11(17x - 14) = -16(-10x + 18)$$

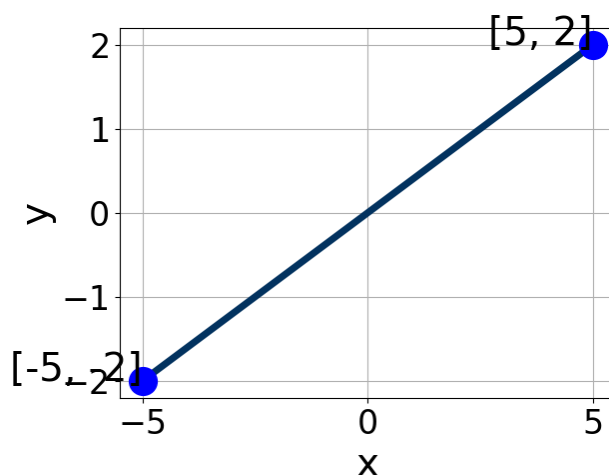
- A.  $x \in [1.16, 1.96]$
- B.  $x \in [-1.06, -0.24]$
- C.  $x \in [0.31, 0.74]$
- D.  $x \in [-5.79, -4.11]$
- E. There are no real solutions.

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

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

- A.  $x \in [61.53, 66.53]$
- B.  $x \in [22.47, 29.47]$
- C.  $x \in [-1.23, 2.77]$
- D.  $x \in [10.18, 15.18]$
- E. There are no real solutions.

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.  $A \in [-0.63, 0.45]$ ,  $B \in [-2, 0]$ , and  $C \in [-1, 4]$
- B.  $A \in [-0.63, 0.45]$ ,  $B \in [0, 3]$ , and  $C \in [-1, 4]$
- C.  $A \in [-2.04, -1.08]$ ,  $B \in [5, 6]$ , and  $C \in [-1, 4]$
- D.  $A \in [1.94, 2.47]$ ,  $B \in [5, 6]$ , and  $C \in [-1, 4]$
- E.  $A \in [1.94, 2.47]$ ,  $B \in [-5, -2]$ , and  $C \in [-1, 4]$

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

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

- A.  $x \in [0.4, 1]$
  - B.  $x \in [-4.6, -3.9]$
  - C.  $x \in [-3, -2.2]$
  - D.  $x \in [1.8, 4.8]$
  - E. There are no real solutions.
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7. 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  $b$ .

$$(8, 7) \text{ and } (6, 6)$$

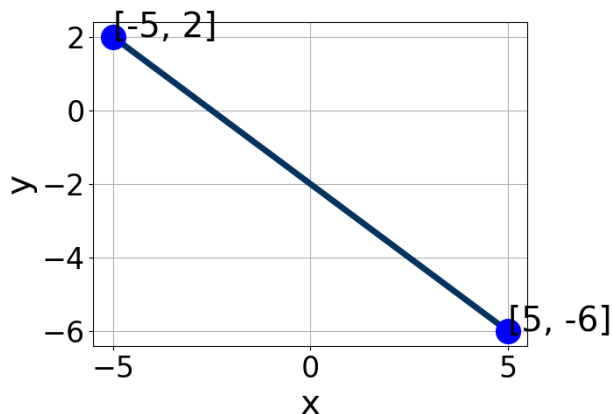
- A.  $m \in [0.36, 1.01]$   $b \in [-0.69, 0.38]$
  - B.  $m \in [-1.09, 0.46]$   $b \in [7.89, 10.51]$
  - C.  $m \in [0.36, 1.01]$   $b \in [-4.21, -2.47]$
  - D.  $m \in [0.36, 1.01]$   $b \in [-1.59, -0.63]$
  - E.  $m \in [0.36, 1.01]$   $b \in [2.51, 3.47]$
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8. Solve the equation below. Then, choose the interval that contains the solution.

$$-19(14x - 12) = -5(15x - 3)$$

- A.  $x \in [0.62, 0.72]$
- B.  $x \in [1.11, 1.15]$
- C.  $x \in [-1.31, -1.25]$
- D.  $x \in [1.21, 1.32]$
- E. There are no real solutions.

9. 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.  $A \in [2, 7]$ ,  $B \in [-6.4, -4.6]$ , and  $C \in [10, 12]$   
B.  $A \in [0.5, 1.2]$ ,  $B \in [-1.6, -0.1]$ , and  $C \in [1, 3]$   
C.  $A \in [2, 7]$ ,  $B \in [4, 6.1]$ , and  $C \in [-15, -8]$   
D.  $A \in [-4.7, -1.9]$ ,  $B \in [-6.4, -4.6]$ , and  $C \in [10, 12]$   
E.  $A \in [0.5, 1.2]$ ,  $B \in [-0.1, 1.5]$ , and  $C \in [-4, 1]$

10. 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  $9x - 7y = 14$  and passing through the point  $(-10, 4)$ .

- A.  $m \in [-1.73, -0.47]$   $b \in [-11.86, -3.86]$   
B.  $m \in [0.82, 2.88]$   $b \in [-16.86, -14.86]$   
C.  $m \in [-0.37, 1.14]$   $b \in [14.86, 22.86]$   
D.  $m \in [0.82, 2.88]$   $b \in [14, 15]$   
E.  $m \in [0.82, 2.88]$   $b \in [14.86, 22.86]$