

1. 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 .

$$(-4, 7) \text{ and } (-8, -2)$$

- A. $m \in [2.25, 3.25]$ $b \in [16, 21]$
 - B. $m \in [2.25, 3.25]$ $b \in [7, 12]$
 - C. $m \in [2.25, 3.25]$ $b \in [3, 8]$
 - D. $m \in [2.25, 3.25]$ $b \in [-16, -10]$
 - E. $m \in [-3.25, -0.25]$ $b \in [-25, -18]$
-

2. 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 $8x - 3y = 10$ and passing through the point $(2, 10)$.

- A. $m \in [-1.3, 0.1]$ $b \in [10.47, 11.43]$
 - B. $m \in [0.1, 1.8]$ $b \in [8.72, 9.49]$
 - C. $m \in [-2.8, -1.2]$ $b \in [10.47, 11.43]$
 - D. $m \in [-1.3, 0.1]$ $b \in [-11.92, -10.38]$
 - E. $m \in [-1.3, 0.1]$ $b \in [7.18, 9.04]$
-

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

$$-8(18x + 4) = -17(-3x - 16)$$

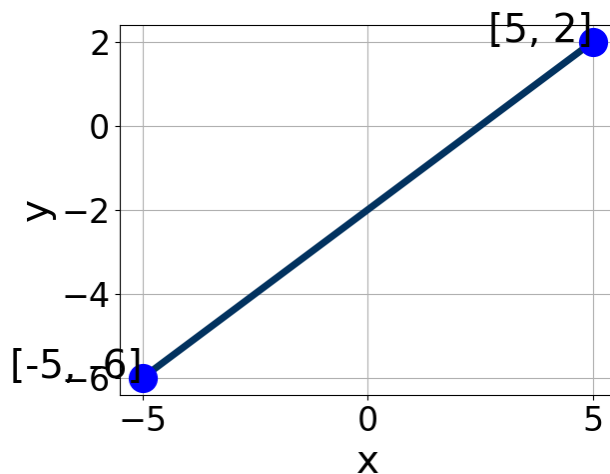
- A. $x \in [-1.42, -1.22]$
- B. $x \in [1.18, 1.39]$
- C. $x \in [2.2, 2.88]$
- D. $x \in [-1.58, -1.44]$
- E. There are no real solutions.

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

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

- A. $x \in [1.6, 2.8]$
- B. $x \in [-1, 1.2]$
- C. $x \in [-4.6, -0.4]$
- D. $x \in [10.7, 11.8]$
- 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 .



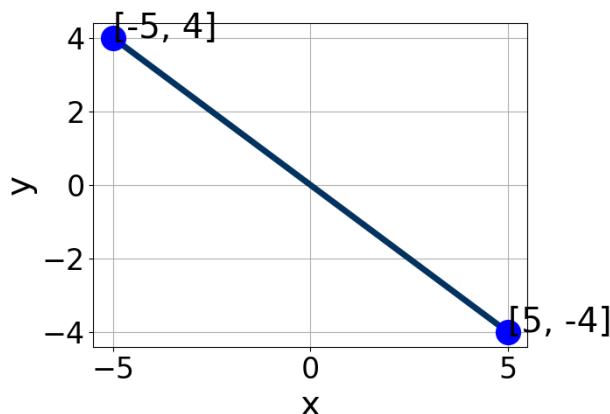
- A. $A \in [-0.8, 1.2]$, $B \in [-1.48, -0.51]$, and $C \in [-1, 3]$
- B. $A \in [3, 10]$, $B \in [-6.55, -3.96]$, and $C \in [4, 16]$
- C. $A \in [-6, -3]$, $B \in [3.98, 5.33]$, and $C \in [-11, -8]$
- D. $A \in [-0.8, 1.2]$, $B \in [0.15, 2.17]$, and $C \in [-5, 1]$
- E. $A \in [3, 10]$, $B \in [3.98, 5.33]$, and $C \in [-11, -8]$

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

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

- A. $x \in [0.5, 2.3]$
 - B. $x \in [-3.2, -1]$
 - C. $x \in [-0.5, 1.7]$
 - D. $x \in [7.7, 9]$
 - E. There are no real solutions.
-

7. 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. $A \in [-8, -1]$, $B \in [-6.2, -2.6]$, and $C \in [-5, 1]$
 - B. $A \in [0.8, 3.8]$, $B \in [-1.5, 0.8]$, and $C \in [-5, 1]$
 - C. $A \in [2, 7]$, $B \in [-6.2, -2.6]$, and $C \in [-5, 1]$
 - D. $A \in [2, 7]$, $B \in [3.6, 6.7]$, and $C \in [-5, 1]$
 - E. $A \in [0.8, 3.8]$, $B \in [-0.1, 1.7]$, and $C \in [-5, 1]$
-

8. 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 .

$$(6, -7) \text{ and } (-5, -6)$$

- A. $m \in [-0.19, 0.07]$ $b \in [-1.93, -0.82]$
- B. $m \in [-0.19, 0.07]$ $b \in [-6.99, -6.45]$
- C. $m \in [0.01, 0.38]$ $b \in [-6.42, -5.27]$
- D. $m \in [-0.19, 0.07]$ $b \in [-13.18, -10.89]$
- E. $m \in [-0.19, 0.07]$ $b \in [5.74, 6.94]$

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

$$-7(9x - 18) = -19(16x + 17)$$

- A. $x \in [-1.18, -0.65]$
- B. $x \in [-2.36, -1.58]$
- C. $x \in [-0.78, -0.22]$
- D. $x \in [0.57, 1.03]$
- E. There are no real solutions.

-
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 .

Perpendicular to $3x - 4y = 8$ and passing through the point $(-3, 10)$.

- A. $m \in [0.8, 1.72]$ $b \in [13.33, 15.06]$
 - B. $m \in [-2.46, -1.21]$ $b \in [12.94, 13.33]$
 - C. $m \in [-0.84, -0.59]$ $b \in [4.97, 7.26]$
 - D. $m \in [-2.46, -1.21]$ $b \in [4.97, 7.26]$
 - E. $m \in [-2.46, -1.21]$ $b \in [-7.01, -4.86]$
-