

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 $4x + 7y = 13$ and passing through the point $(-5, 5)$.

- A. $m \in [-0.86, -0.39]$ $b \in [-2.3, -0.2]$
 - B. $m \in [-0.86, -0.39]$ $b \in [9.1, 10.1]$
 - C. $m \in [-0.07, 0.7]$ $b \in [6.9, 9.1]$
 - D. $m \in [-2.04, -1.46]$ $b \in [1.1, 4]$
 - E. $m \in [-0.86, -0.39]$ $b \in [1.1, 4]$
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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 .

$(-10, 8)$ and $(7, -9)$

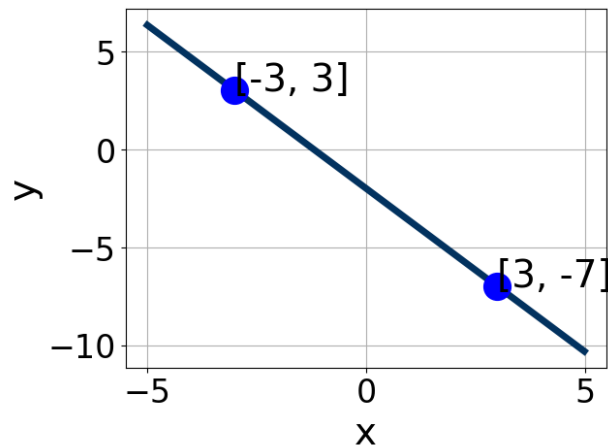
- A. $m \in [-1.8, -0.7]$ $b \in [16, 21]$
 - B. $m \in [-1.8, -0.7]$ $b \in [-10, 0]$
 - C. $m \in [-0.1, 2.2]$ $b \in [-20, -9]$
 - D. $m \in [-1.8, -0.7]$ $b \in [1, 5]$
 - E. $m \in [-1.8, -0.7]$ $b \in [-20, -9]$
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3. Find the equation of the line described below. Write the linear equation as $y = mx + b$ and choose the intervals that contain m and b .

Perpendicular to $4x - 5y = 13$ and passing through the point $(-3, 5)$.

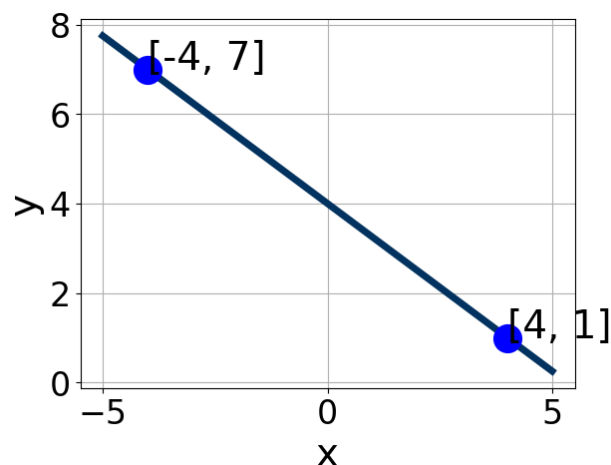
- A. $m \in [-1.57, -0.98]$ $b \in [-2.21, -0.51]$
- B. $m \in [-1.57, -0.98]$ $b \in [6.64, 8.13]$
- C. $m \in [-1.57, -0.98]$ $b \in [-0.16, 2.44]$
- D. $m \in [1, 1.31]$ $b \in [8.33, 9.55]$
- E. $m \in [-0.89, 0.05]$ $b \in [-0.16, 2.44]$

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. $A \in [-1.33, 3.67]$, $B \in [-1.32, -0.06]$, and $C \in [0.1, 4.5]$
B. $A \in [-1.33, 3.67]$, $B \in [0.52, 1.41]$, and $C \in [-4.1, -1.6]$
C. $A \in [3, 8]$, $B \in [2.44, 3.97]$, and $C \in [-6.2, -5.6]$
D. $A \in [3, 8]$, $B \in [-3.19, -1.84]$, and $C \in [5.1, 9.2]$
E. $A \in [-7, -2]$, $B \in [-3.19, -1.84]$, and $C \in [5.1, 9.2]$

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. $A \in [-3.4, -2.4]$, $B \in [-4.7, -1.3]$, and $C \in [-20, -12]$
- B. $A \in [2.7, 3.8]$, $B \in [2.5, 6.3]$, and $C \in [14, 17]$
- C. $A \in [-0.2, 2.1]$, $B \in [0.4, 2.5]$, and $C \in [2, 10]$
- D. $A \in [-0.2, 2.1]$, $B \in [-2, -0.2]$, and $C \in [-7, -2]$
- E. $A \in [2.7, 3.8]$, $B \in [-4.7, -1.3]$, and $C \in [-20, -12]$
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6. Solve the equation below. Then, choose the interval that contains the solution.

$$-5(-17x - 6) = -2(19x + 3)$$

- A. $x \in [-0.33, -0.24]$
- B. $x \in [-0.56, -0.5]$
- C. $x \in [0.11, 0.27]$
- D. $x \in [-0.26, -0.17]$
- E. There are no real solutions.
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7. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [-0.87, 3.13]$
- B. $x \in [-228, -223]$
- C. $x \in [-67.5, -57.5]$
- D. $x \in [-27.5, -19.5]$
- E. There are no real solutions.
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8. Solve the equation below. Then, choose the interval that contains the solution.

$$-2(-6x + 17) = -15(-7x + 5)$$

- A. $x \in [-1.22, -1.02]$
 - B. $x \in [-0.53, 0.46]$
 - C. $x \in [0.87, 1.1]$
 - D. $x \in [1.04, 1.26]$
 - E. There are no real solutions.
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9. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [10.4, 12.4]$
 - B. $x \in [0.81, 3.81]$
 - C. $x \in [-3.25, 0.75]$
 - D. $x \in [3.07, 7.07]$
 - E. There are no real solutions.
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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 .

$$(-2, 4) \text{ and } (-6, 10)$$

- A. $m \in [-1.5, -0.5]$ $b \in [-1.1, -0.6]$
 - B. $m \in [0.5, 2.5]$ $b \in [16.9, 20.9]$
 - C. $m \in [-1.5, -0.5]$ $b \in [13, 16.5]$
 - D. $m \in [-1.5, -0.5]$ $b \in [0.5, 3.4]$
 - E. $m \in [-1.5, -0.5]$ $b \in [5.7, 7.5]$
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