

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

$$-17(4x + 12) = -3(2x + 15)$$

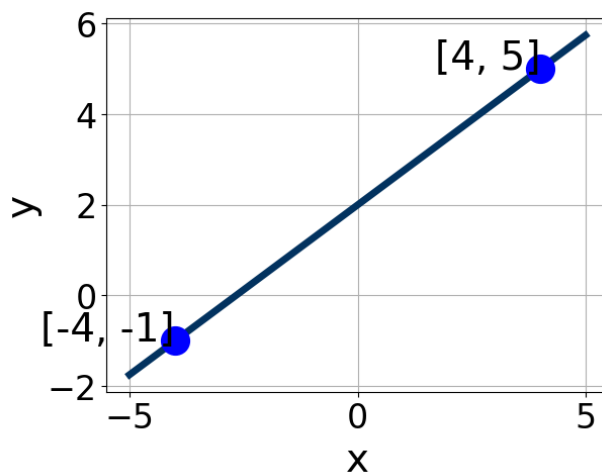
- A. $x \in [-4.23, -3.85]$
 - B. $x \in [-3.04, -2.19]$
 - C. $x \in [-3.79, -3.01]$
 - D. $x \in [3.92, 4.15]$
 - E. There are no real solutions.
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2. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [-6, -5.2]$
 - B. $x \in [-1.9, -0.1]$
 - C. $x \in [-3.5, -1.1]$
 - D. $x \in [0.7, 2.1]$
 - E. There are no real solutions.
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3. 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. $A \in [-3, -1]$, $B \in [2.7, 6.6]$, and $C \in [6, 9]$
- B. $A \in [1, 6]$, $B \in [2.7, 6.6]$, and $C \in [6, 9]$
- C. $A \in [1, 6]$, $B \in [-4.7, -3.5]$, and $C \in [-9, -7]$
- D. $A \in [-2.75, 0.25]$, $B \in [-1.8, -0.1]$, and $C \in [-6, -1]$
- E. $A \in [-2.75, 0.25]$, $B \in [0.6, 2.7]$, and $C \in [0, 6]$

4. 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 $5x - 7y = 13$ and passing through the point $(10, 7)$.

- A. $m \in [-1.02, -0.22]$ $b \in [13.78, 14.59]$
- B. $m \in [0.65, 1.15]$ $b \in [0.08, 0.45]$
- C. $m \in [0.65, 1.15]$ $b \in [-0.5, 0.1]$
- D. $m \in [1.2, 1.88]$ $b \in [-0.5, 0.1]$
- E. $m \in [0.65, 1.15]$ $b \in [-3.23, -2.58]$

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 .

$(5, 4)$ and $(-9, 2)$

- A. $m \in [-0.04, 1.1]$ $b \in [2.63, 4.19]$
 - B. $m \in [-0.34, 0.08]$ $b \in [0.26, 0.88]$
 - C. $m \in [-0.04, 1.1]$ $b \in [10.67, 11.29]$
 - D. $m \in [-0.04, 1.1]$ $b \in [-3.74, -3.24]$
 - E. $m \in [-0.04, 1.1]$ $b \in [-1.02, -0.74]$
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6. Solve the equation below. Then, choose the interval that contains the solution.

$$-17(4x - 14) = -13(-5x + 11)$$

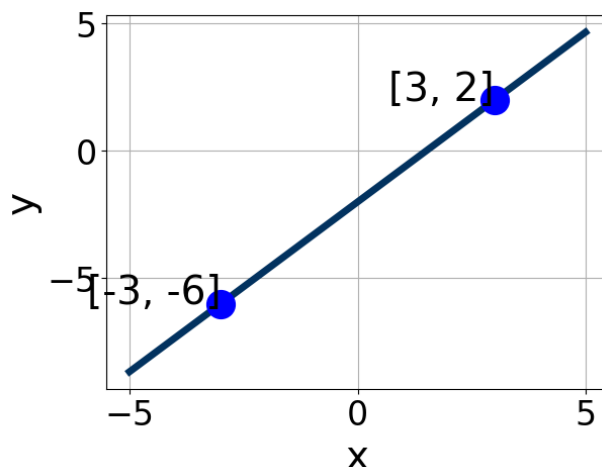
- A. $x \in [-1.03, -0.61]$
 - B. $x \in [31.42, 32.35]$
 - C. $x \in [0.46, 0.77]$
 - D. $x \in [2.43, 3.1]$
 - E. There are no real solutions.
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7. First, find the equation of the line containing the two points below. Then, write the equation as $y = mx + b$ and choose the intervals that contain m and b .

$$(5, 11) \text{ and } (-9, -6)$$

- A. $m \in [-0.2, 3.4]$ $b \in [5.3, 7.4]$
 - B. $m \in [-0.2, 3.4]$ $b \in [3.6, 5.4]$
 - C. $m \in [-0.2, 3.4]$ $b \in [-6.6, -4.3]$
 - D. $m \in [-0.2, 3.4]$ $b \in [-1.4, 3.9]$
 - E. $m \in [-3.6, 0]$ $b \in [-17.2, -15]$
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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. $A \in [-7, -3]$, $B \in [1.62, 4.26]$, and $C \in [-7.2, -4]$
- B. $A \in [-3.33, -0.33]$, $B \in [0.99, 1.45]$, and $C \in [-4.9, -1.3]$
- C. $A \in [-3.33, -0.33]$, $B \in [-1.68, -0.17]$, and $C \in [1.5, 2.9]$
- D. $A \in [0, 8]$, $B \in [-4.23, -2.86]$, and $C \in [4.3, 8.9]$
- E. $A \in [0, 8]$, $B \in [1.62, 4.26]$, and $C \in [-7.2, -4]$

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

$$\frac{3x + 8}{2} - \frac{7x - 5}{4} = \frac{-8x - 7}{5}$$

- A. $x \in [-5.2, -3.9]$
- B. $x \in [-2.1, -1.2]$
- C. $x \in [-14.9, -13.5]$
- D. $x \in [-4.5, -3]$
- 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 .

Parallel to $9x + 8y = 10$ and passing through the point $(9, 7)$.

- A. $m \in [1.07, 1.26]$ $b \in [-4.2, -2.7]$
 - B. $m \in [-1.4, -1.12]$ $b \in [-2.9, -1.3]$
 - C. $m \in [-1.4, -1.12]$ $b \in [16.6, 18.6]$
 - D. $m \in [-0.95, -0.85]$ $b \in [16.6, 18.6]$
 - E. $m \in [-1.4, -1.12]$ $b \in [-19.6, -16.1]$
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