

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

$$-5(11x + 12) = -14(7x + 13)$$

- A. $x \in [-5.63, -3.63]$
 - B. $x \in [-2.84, -1.84]$
 - C. $x \in [4.63, 8.63]$
 - D. $x \in [-2.58, -0.58]$
 - E. There are no real solutions.
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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 .

Parallel to $6x - 5y = 6$ and passing through the point $(6, 7)$.

- A. $m \in [0.84, 1.21]$ $b \in [0.03, 0.3]$
 - B. $m \in [-1.95, -0.77]$ $b \in [13.57, 14.51]$
 - C. $m \in [0.84, 1.21]$ $b \in [-0.43, -0.13]$
 - D. $m \in [-0.09, 1.12]$ $b \in [-0.43, -0.13]$
 - E. $m \in [0.84, 1.21]$ $b \in [0.84, 1.04]$
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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 $7x - 4y = 14$ and passing through the point $(2, -5)$.

- A. $m \in [-3.2, -1.1]$ $b \in [-1.77, -0.45]$
- B. $m \in [0.3, 1.2]$ $b \in [-9.89, -8.1]$
- C. $m \in [0.7, 3.3]$ $b \in [-9.89, -8.1]$
- D. $m \in [0.7, 3.3]$ $b \in [-8, -6.77]$
- E. $m \in [0.7, 3.3]$ $b \in [8.43, 9.46]$

4. 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 .

$$(-10, -4) \text{ and } (-11, -3)$$

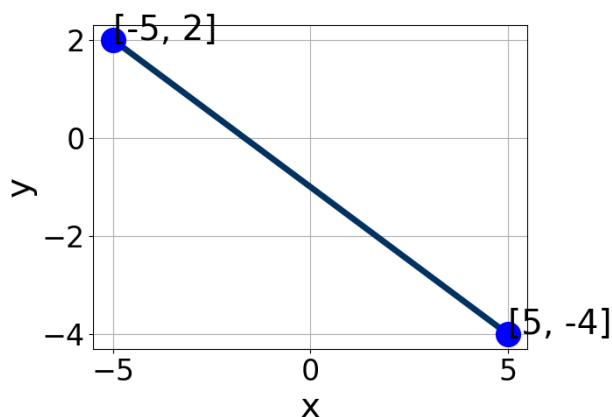
- A. $m \in [-3.8, -0.6]$ $b \in [3, 7]$
B. $m \in [-3.8, -0.6]$ $b \in [8, 12]$
C. $m \in [-3.8, -0.6]$ $b \in [9, 17]$
D. $m \in [-3.8, -0.6]$ $b \in [-15, -7]$
E. $m \in [0.2, 3.4]$ $b \in [8, 12]$
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5. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [-1.7, 0.2]$
B. $x \in [-4.4, -1.5]$
C. $x \in [-6.3, -5]$
D. $x \in [0.1, 2.7]$
E. There are no real solutions.
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6. 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. $A \in [1.4, 7.1]$, $B \in [-5.2, -3.3]$, and $C \in [4.2, 6]$
B. $A \in [1.4, 7.1]$, $B \in [2.6, 6.7]$, and $C \in [-5.6, -4.7]$
C. $A \in [-1.1, 1.7]$, $B \in [-2, -0.1]$, and $C \in [0.2, 1.2]$
D. $A \in [-6.7, -2.3]$, $B \in [-5.2, -3.3]$, and $C \in [4.2, 6]$
E. $A \in [-1.1, 1.7]$, $B \in [0.3, 2.6]$, and $C \in [-1.6, -0.4]$

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

$$-2(-7x - 10) = -5(19x + 9)$$

- A. $x \in [-0.27, -0.15]$
B. $x \in [-0.44, -0.29]$
C. $x \in [-0.61, -0.47]$
D. $x \in [0.18, 0.23]$
E. There are no real solutions.

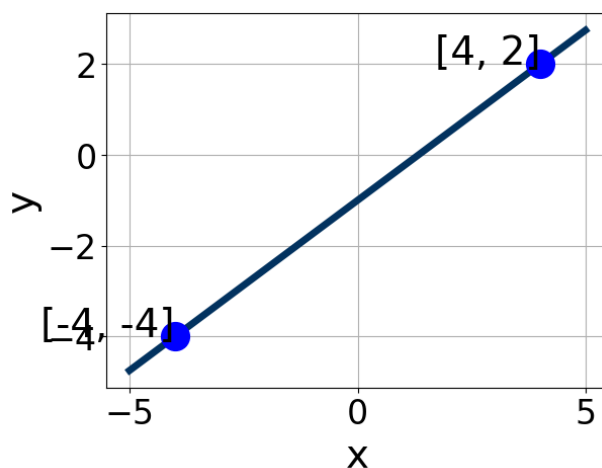
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8. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{3x + 6}{7} - \frac{-4x + 7}{2} = \frac{5x + 9}{4}$$

- A. $x \in [4.15, 8.15]$
B. $x \in [0.45, 3.45]$

- C. $x \in [-3.79, 0.21]$
- D. $x \in [5.48, 9.48]$
- 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. $A \in [0, 5]$, $B \in [-4.4, -2]$, and $C \in [2.6, 6.2]$
- B. $A \in [-1.75, 2.25]$, $B \in [-0.3, 2.7]$, and $C \in [-1.7, 0.3]$
- C. $A \in [0, 5]$, $B \in [2.1, 4.8]$, and $C \in [-6, -3]$
- D. $A \in [-8, -2]$, $B \in [2.1, 4.8]$, and $C \in [-6, -3]$
- E. $A \in [-1.75, 2.25]$, $B \in [-3.8, 0.8]$, and $C \in [0.7, 2.8]$

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 .

$$(-7, 7) \text{ and } (7, 10)$$

- A. $m \in [0.15, 0.29]$ $b \in [13.73, 15.34]$
- B. $m \in [-0.26, -0.16]$ $b \in [11.06, 11.68]$
- C. $m \in [0.15, 0.29]$ $b \in [2.31, 3.35]$

D. $m \in [0.15, 0.29]$ $b \in [-9.69, -6.12]$

E. $m \in [0.15, 0.29]$ $b \in [8.49, 10.11]$
