

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 $4x - 5y = 14$ and passing through the point $(-9, 9)$.

- A. $m \in [0.49, 1.15]$ $b \in [17.1, 19.4]$
 - B. $m \in [-0.85, -0.41]$ $b \in [-0.6, 3.9]$
 - C. $m \in [1.19, 1.26]$ $b \in [15.1, 17.3]$
 - D. $m \in [0.49, 1.15]$ $b \in [-18.2, -15.9]$
 - E. $m \in [0.49, 1.15]$ $b \in [15.1, 17.3]$
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2. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [0.9, 3.3]$
 - B. $x \in [5.1, 7.7]$
 - C. $x \in [-0.6, 1.7]$
 - D. $x \in [-2.3, 0.2]$
 - E. There are no real solutions.
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3. Solve the equation below. Then, choose the interval that contains the solution.

$$-3(12x + 17) = -9(2x - 14)$$

- A. $x \in [3.17, 6.17]$
 - B. $x \in [-4.17, -0.17]$
 - C. $x \in [-11.83, -5.83]$
 - D. $x \in [0.39, 3.39]$
 - E. There are no real solutions.
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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 .

$$(-2, -6) \text{ and } (-5, 7)$$

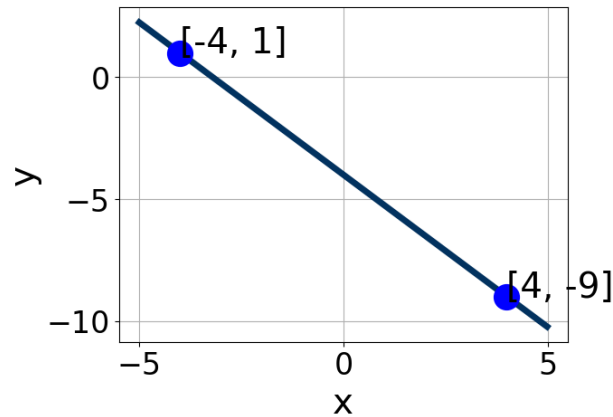
- A. $m \in [-6.33, -3.33]$ $b \in [6, 14]$
 - B. $m \in [-6.33, -3.33]$ $b \in [-18.67, -7.67]$
 - C. $m \in [2.33, 8.33]$ $b \in [26.67, 31.67]$
 - D. $m \in [-6.33, -3.33]$ $b \in [-9, -3]$
 - E. $m \in [-6.33, -3.33]$ $b \in [12.67, 17.67]$
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5. 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 .

$$(-7, 10) \text{ and } (5, 8)$$

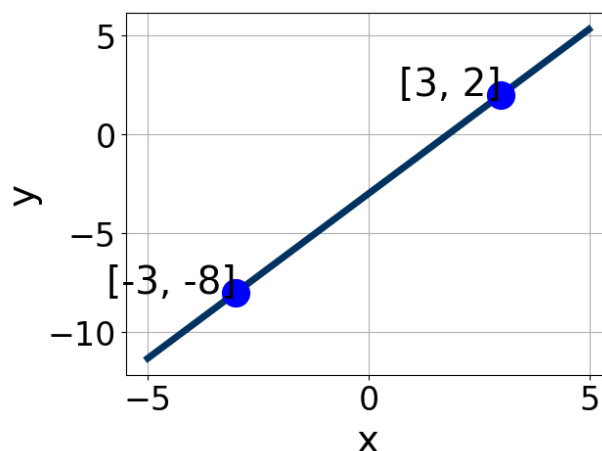
- A. $m \in [-0.7, -0.1]$ $b \in [2.8, 5.1]$
 - B. $m \in [-0.7, -0.1]$ $b \in [16.6, 17.4]$
 - C. $m \in [0, 1]$ $b \in [4.4, 8.7]$
 - D. $m \in [-0.7, -0.1]$ $b \in [7.9, 14.3]$
 - E. $m \in [-0.7, -0.1]$ $b \in [-10.5, -8.4]$
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6. Write the equation of the line in the graph below in Standard form $Ax + By = C$. Then, choose the intervals that contain A , B , and C .



- A. $A \in [4, 7]$, $B \in [3.7, 4.3]$, and $C \in [-16, -10]$
- B. $A \in [-6, -2]$, $B \in [-4.87, -3.18]$, and $C \in [16, 19]$
- C. $A \in [-1.75, 2.25]$, $B \in [0.57, 1.06]$, and $C \in [-4, 1]$
- D. $A \in [-1.75, 2.25]$, $B \in [-2.05, -0.22]$, and $C \in [4, 9]$
- E. $A \in [4, 7]$, $B \in [-4.87, -3.18]$, and $C \in [16, 19]$

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. $A \in [-1.67, 1.33]$, $B \in [-0.53, 1.17]$, and $C \in [-5, 1]$
- B. $A \in [1, 10]$, $B \in [2.19, 4.71]$, and $C \in [-15, -5]$
- C. $A \in [1, 10]$, $B \in [-3.69, -2.09]$, and $C \in [8, 11]$
- D. $A \in [-6, -3]$, $B \in [2.19, 4.71]$, and $C \in [-15, -5]$

E. $A \in [-1.67, 1.33]$, $B \in [-1.73, 0.96]$, and $C \in [3, 8]$

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

$$-19(4x - 18) = -16(17x + 15)$$

- A. $x \in [-0.77, -0.5]$
B. $x \in [0.43, 0.67]$
C. $x \in [-0.07, 0.42]$
D. $x \in [-3.25, -2.69]$
E. There are no real solutions.
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9. 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 $8x + 5y = 12$ and passing through the point $(8, -4)$.

- A. $m \in [-1, -0.03]$ $b \in [0, 4]$
B. $m \in [0.58, 0.86]$ $b \in [8, 10]$
C. $m \in [0.96, 1.88]$ $b \in [-9, -6]$
D. $m \in [0.58, 0.86]$ $b \in [-12, -10]$
E. $m \in [0.58, 0.86]$ $b \in [-9, -6]$
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10. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{-6x - 7}{8} - \frac{-3x + 7}{2} = \frac{4x + 5}{4}$$

- A. $x \in [5.5, 8.5]$
B. $x \in [-1.8, 0.2]$
C. $x \in [-23.5, -21.5]$
D. $x \in [-76, -75]$

E. There are no real solutions.
