

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 $3x - 7y = 7$ and passing through the point $(10, 8)$.

- A. $m \in [1.99, 2.4]$ $b \in [3.69, 4.22]$
 - B. $m \in [-0.05, 1.77]$ $b \in [-4.68, -2.53]$
 - C. $m \in [-0.05, 1.77]$ $b \in [-2.69, -1.22]$
 - D. $m \in [-0.44, 0.12]$ $b \in [11.53, 13.45]$
 - E. $m \in [-0.05, 1.77]$ $b \in [3.69, 4.22]$
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2. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [-4.58, -0.58]$
 - B. $x \in [-7.96, -4.96]$
 - C. $x \in [-1.31, 2.69]$
 - D. $x \in [-41.77, -34.77]$
 - E. There are no real solutions.
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3. Solve the equation below. Then, choose the interval that contains the solution.

$$-5(9x - 12) = -15(-18x - 14)$$

- A. $x \in [0.79, 1.06]$
 - B. $x \in [-1.07, -0.77]$
 - C. $x \in [-0.64, -0.45]$
 - D. $x \in [-1.35, -1.19]$
 - 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 .

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

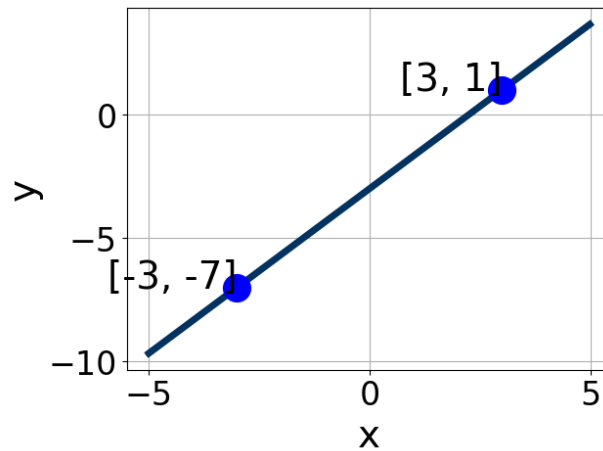
- A. $m \in [1.5, 7.5]$ $b \in [13.72, 16.39]$
 - B. $m \in [1.5, 7.5]$ $b \in [-14.47, -13.28]$
 - C. $m \in [-4.5, 0.5]$ $b \in [-0.25, 0.59]$
 - D. $m \in [1.5, 7.5]$ $b \in [-1.92, -0.84]$
 - E. $m \in [1.5, 7.5]$ $b \in [8.3, 9.67]$
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5. First, 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 .

$$(-11, 3) \text{ and } (10, 7)$$

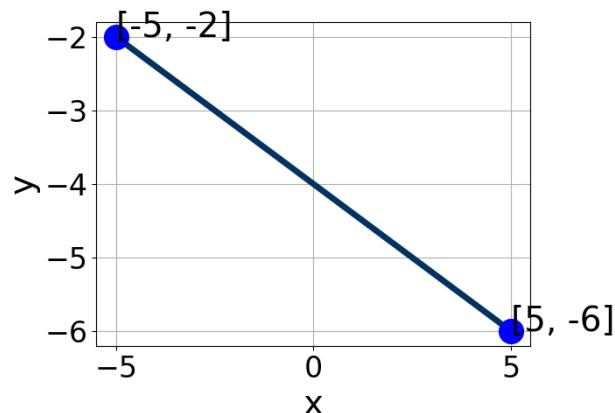
- A. $m \in [-0.21, -0.15]$ $b \in [8.4, 11.1]$
 - B. $m \in [0.05, 0.96]$ $b \in [-5.6, -4]$
 - C. $m \in [0.05, 0.96]$ $b \in [12.2, 17.1]$
 - D. $m \in [0.05, 0.96]$ $b \in [-3.2, -2.4]$
 - E. $m \in [0.05, 0.96]$ $b \in [1.2, 5.9]$
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6. Write the 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. $A \in [-2.7, -1]$, $B \in [-1.2, -0.4]$, and $C \in [1, 6]$
 B. $A \in [-2.7, -1]$, $B \in [0.4, 2.3]$, and $C \in [-8, -2]$
 C. $A \in [3.8, 4.2]$, $B \in [-4.8, -1.3]$, and $C \in [9, 12]$
 D. $A \in [-4.2, -3.9]$, $B \in [1.6, 6.4]$, and $C \in [-12, -7]$
 E. $A \in [3.8, 4.2]$, $B \in [1.6, 6.4]$, and $C \in [-12, -7]$

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. $A \in [-0.85, 1.82]$, $B \in [-0.51, 1.37]$, and $C \in [-4, 0]$
 B. $A \in [-0.85, 1.82]$, $B \in [-2.01, -0.74]$, and $C \in [4, 14]$
 C. $A \in [-2.86, -1.21]$, $B \in [-6.01, -4.71]$, and $C \in [15, 25]$
 D. $A \in [0.78, 2.6]$, $B \in [4.78, 5.9]$, and $C \in [-21, -9]$

E. $A \in [0.78, 2.6]$, $B \in [-6.01, -4.71]$, and $C \in [15, 25]$

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

$$-12(18x + 16) = -4(-14x - 7)$$

- A. $x \in [-1.16, -0.83]$
B. $x \in [-0.68, -0.54]$
C. $x \in [-0.91, -0.63]$
D. $x \in [0.27, 0.62]$
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 $8x - 7y = 4$ and passing through the point $(-2, -9)$.

- A. $m \in [-1.01, -0.67]$ $b \in [-10.87, -10.74]$
B. $m \in [-1.01, -0.67]$ $b \in [-7.17, -6.92]$
C. $m \in [-1.01, -0.67]$ $b \in [10.72, 10.93]$
D. $m \in [-1.17, -1.11]$ $b \in [-10.87, -10.74]$
E. $m \in [0.51, 1.28]$ $b \in [-7.39, -7.18]$
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10. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [-6, -3.8]$
B. $x \in [-4.4, -2.9]$
C. $x \in [1.2, 2.3]$
D. $x \in [-9.8, -7.1]$

E. There are no real solutions.
