

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 .

Perpendicular to $7x - 8y = 11$ and passing through the point $(7, 3)$.

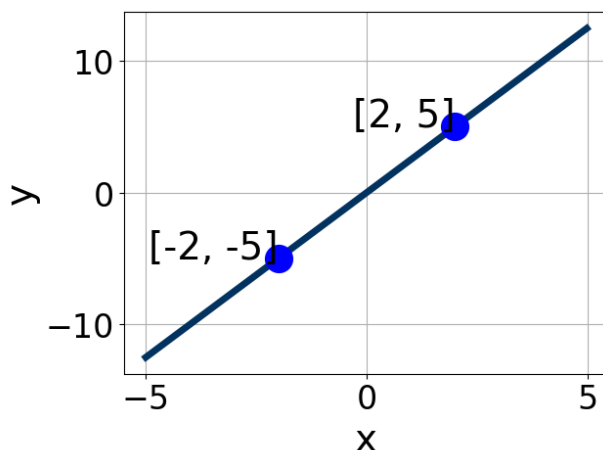
- A. $m \in [0.98, 1.28]$ $b \in [-6.3, -4.7]$
 - B. $m \in [-1.84, -1.11]$ $b \in [-13.8, -10.2]$
 - C. $m \in [-1.84, -1.11]$ $b \in [-4.4, -1.3]$
 - D. $m \in [-1.84, -1.11]$ $b \in [9.6, 13.5]$
 - E. $m \in [-1.03, -0.51]$ $b \in [9.6, 13.5]$
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2. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{9x + 9}{4} - \frac{-8x - 5}{7} = \frac{6x - 4}{3}$$

- A. $x \in [-3.17, -2.98]$
 - B. $x \in [-1.1, 0.16]$
 - C. $x \in [-2.2, -1.77]$
 - D. $x \in [-13.43, -11.97]$
 - 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. $A \in [-6, -3]$, $B \in [1.47, 2.06]$, and $C \in [-5, 6]$
 B. $A \in [5, 8]$, $B \in [-2.44, -1.73]$, and $C \in [-5, 6]$
 C. $A \in [-2.5, 4.5]$, $B \in [-1.12, -0.95]$, and $C \in [-5, 6]$
 D. $A \in [5, 8]$, $B \in [1.47, 2.06]$, and $C \in [-5, 6]$
 E. $A \in [-2.5, 4.5]$, $B \in [0.71, 1.01]$, and $C \in [-5, 6]$

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 .

Perpendicular to $7x - 9y = 15$ and passing through the point $(7, 9)$.

- A. $m \in [-1.06, -0.3]$ $b \in [15.3, 19.5]$
 B. $m \in [0.72, 1.41]$ $b \in [-3.2, 0.2]$
 C. $m \in [-2.04, -1.28]$ $b \in [0.7, 2.8]$
 D. $m \in [-2.04, -1.28]$ $b \in [15.3, 19.5]$
 E. $m \in [-2.04, -1.28]$ $b \in [-20.4, -17.7]$

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 .

$(11, 2)$ and $(-2, -4)$

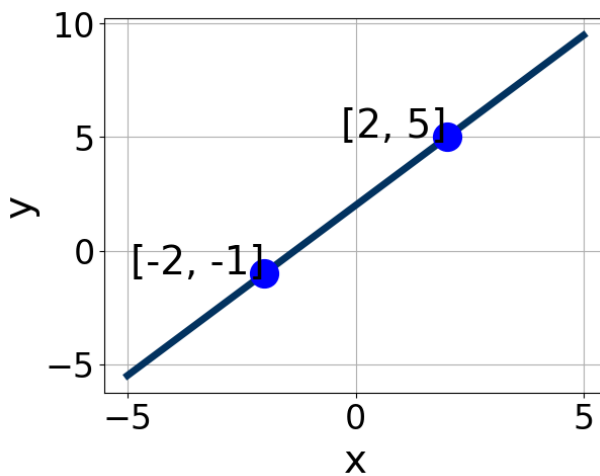
- A. $m \in [-0.46, 0.67]$ $b \in [-3.38, -2.1]$
B. $m \in [-0.46, 0.67]$ $b \in [-2.9, -1.79]$
C. $m \in [-0.46, 0.67]$ $b \in [-9.49, -6.6]$
D. $m \in [-1.83, -0.29]$ $b \in [-4.96, -4.42]$
E. $m \in [-0.46, 0.67]$ $b \in [2.43, 3.33]$
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6. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A. $x \in [-6.9, -4.3]$
B. $x \in [0.4, 3.2]$
C. $x \in [-2.7, -1.1]$
D. $x \in [-1.5, 0]$
E. There are no real solutions.
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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. $A \in [-1.84, -0.56]$, $B \in [-1.38, -0.74]$, and $C \in [-2.15, 0.06]$

- B. $A \in [-4.07, -2.58]$, $B \in [1.37, 3.81]$, and $C \in [3.93, 4.3]$
C. $A \in [2.43, 3.14]$, $B \in [-2.2, -1.35]$, and $C \in [-4.71, -3.08]$
D. $A \in [2.43, 3.14]$, $B \in [1.37, 3.81]$, and $C \in [3.93, 4.3]$
E. $A \in [-1.84, -0.56]$, $B \in [0.48, 1.93]$, and $C \in [0, 3.52]$
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8. Solve the equation below. Then, choose the interval that contains the solution.

$$-11(-2x - 14) = -10(16x + 5)$$

- A. $x \in [0.67, 1.15]$
B. $x \in [0.38, 0.74]$
C. $x \in [-0.6, -0.43]$
D. $x \in [-1.23, -0.98]$
E. There are no real solutions.
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9. 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 .

$$(4, -2) \text{ and } (-9, 7)$$

- A. $m \in [-0.8, 0.3]$ $b \in [-0.8, 0.3]$
B. $m \in [-0.8, 0.3]$ $b \in [15.5, 16.9]$
C. $m \in [-0.8, 0.3]$ $b \in [-7.9, -5.5]$
D. $m \in [-0.8, 0.3]$ $b \in [-0.5, 2.2]$
E. $m \in [-0.4, 3.6]$ $b \in [11.8, 13.4]$
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10. Solve the equation below. Then, choose the interval that contains the solution.

$$-7(19x + 8) = -2(9x - 13)$$

- A. $x \in [-0.32, -0.22]$

- B. $x \in [0.26, 0.27]$
 - C. $x \in [-0.87, -0.6]$
 - D. $x \in [-0.21, -0.15]$
 - E. There are no real solutions.
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