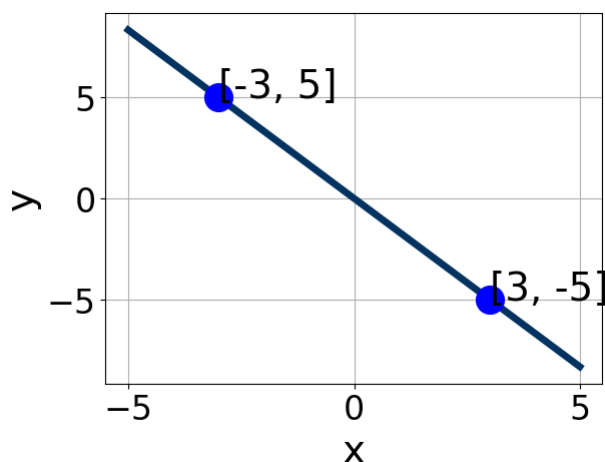1. Write the equation of the line in the graph below in Standard form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.

A. $A \in [-0.4, 4.7]$, $B \in [-1.29, -0.29]$, and $C \in [-6, 5]$

B. $A \in [3.8, 7.3]$, $B \in [-3.62, -2.66]$, and $C \in [-6, 5]$

C. $A \in [3.8, 7.3]$, $B \in [1.99, 3.57]$, and $C \in [-6, 5]$

D. $A \in [-0.4, 4.7]$, $B \in [-0.69, 1.75]$, and $C \in [-6, 5]$

E. $A \in [-5.4, -3.5]$, $B \in [-3.62, -2.66]$, and $C \in [-6, 5]$

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2. Solve the linear equation below. Then, choose the interval that contains the solution.
$$\frac{-7x + 8}{5} - \frac{6x - 9}{7} = \frac{-3x - 4}{2}$$

A. $x \in [27.6, 29.2]$

B. $x \in [2.6, 3.3]$

C. $x \in [-0.6, 2.4]$

D. $x \in [5.5, 7.1]$

E. There are no real solutions.

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3. Solve the equation below. Then, choose the interval that contains the

solution.

$$-4(-5x - 8) = -13(-15x + 9)$$

A. $x \in [0.44, 0.69]$

B. $x \in [0.8, 0.94]$

C. $x \in [-0.76, -0.33]$

D. $x \in [0.38, 0.43]$

E. There are no real solutions.

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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 $8x + 3y = 13$ and passing through the point $(10, 3)$.

   A. $m \in [0.11, 0.57]$ $b \in [-10, -3]$

   B. $m \in [2.04, 2.72]$ $b \in [-1.75, 0.25]$

   C. $m \in [0.11, 0.57]$ $b \in [-1.75, 0.25]$

   D. $m \in [-2.04, -0.06]$ $b \in [4.75, 14.75]$

   E. $m \in [0.11, 0.57]$ $b \in [-0.25, 3.75]$

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5. 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.
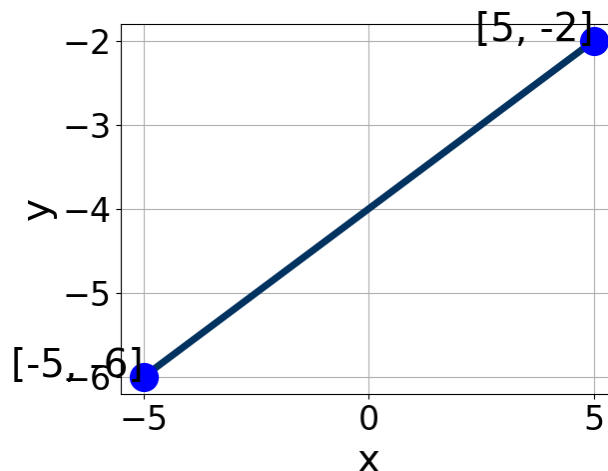
A. $A \in [-3.7, -0.9]$, $B \in [3.6, 6.3]$, and $C \in [-21, -17]$

B. $A \in [-1.8, 1.6]$, $B \in [-4.2, 0.5]$, and $C \in [0, 5]$

C. $A \in [-1.8, 1.6]$, $B \in [0.2, 3.1]$, and $C \in [-5, 0]$

D. $A \in [1.3, 4.9]$, $B \in [-6.1, -3.4]$, and $C \in [17, 29]$

E. $A \in [1.3, 4.9]$, $B \in [3.6, 6.3]$, and $C \in [-21, -17]$

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6. 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.

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

A. $m \in [-0.19, 1.81]$ $b \in [-12.2, -10.4]$

B. $m \in [-3.81, 0.19]$ $b \in [-3.9, -2.7]$

C. $m \in [-3.81, 0.19]$ $b \in [1.4, 5.1]$

D. $m \in [-3.81, 0.19]$ $b \in [-14.2, -12.1]$

E. $m \in [-3.81, 0.19]$ $b \in [15.6, 17]$

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

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

A. $x \in [-8.5, -7.3]$

B. $x \in [-0.5, 1.3]$

C. $x \in [-3.2, -2.8]$

D. $x \in [3.7, 4.9]$

E. There are no real solutions.

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

$$-18(-8x + 15) = -7(17x - 13)$$

  A. $x \in [-1.22, 0.49]$

  B. $x \in [-0.58, 1.32]$

  C. $x \in [6.88, 7.35]$

  D. $x \in [1.27, 1.54]$

  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 $8x - 3y = 13$ and passing through the point $(-9, 6)$.

  A. $m \in [-1.3, 0.04] \quad b \in [1.62, 3.62]$

  B. $m \in [-0.32, 1.74] \quad b \in [5.38, 10.38]$

  C. $m \in [-1.3, 0.04] \quad b \in [-5.62, 2.38]$

  D. $m \in [-3.4, -2.39] \quad b \in [1.62, 3.62]$

  E. $m \in [-1.3, 0.04] \quad b \in [15, 18]$

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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.

$$(3, 3) \text{ and } (7, 2)$$

  A. $m \in [-0.1, 0.48] \quad b \in [0.21, 0.77]$

  B. $m \in [-0.54, -0.12] \quad b \in [3.1, 4.78]$

  C. $m \in [-0.54, -0.12] \quad b \in [-5.69, -4.83]$

  D. $m \in [-0.54, -0.12] \quad b \in [-0.76, 0.02]$

  E. $m \in [-0.54, -0.12] \quad b \in [-4.21, -3.38]$