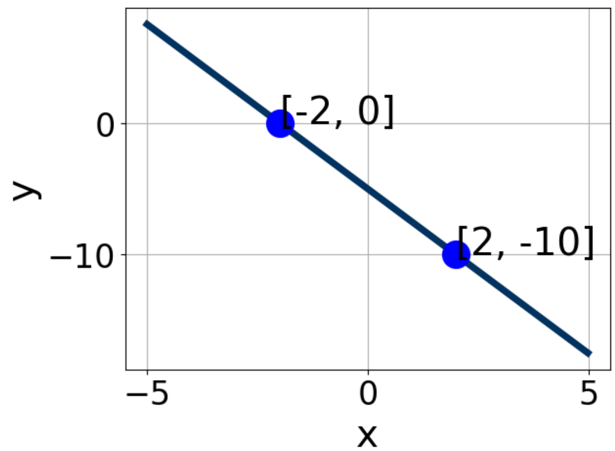
1. Write the equation of the line in the graph below in Standard form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and $C$.




A. $A \in [4, 6], \quad B \in [1.92, 2.48], \text{ and } \quad C \in [-12.4, -8.9]$

B. $A \in [1.5, 4.5], \quad B \in [0.54, 1.54], \text{ and } \quad C \in [-7.4, -3.8]$

C. $A \in [4, 6], \quad B \in [-2.61, -1.41], \text{ and } \quad C \in [7.4, 12.2]$

D. $A \in [1.5, 4.5], \quad B \in [-1.2, -0.68], \text{ and } \quad C \in [2.6, 7.8]$

E. $A \in [-6, 1], \quad B \in [-2.61, -1.41], \text{ and } \quad C \in [7.4, 12.2]$

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2. 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 $b$.

$$(-11, 3) \text{ and } (-5, -10)$$

A. $m \in [1.4, 3.4] \quad b \in [-0.17, 1.83]$

B. $m \in [-2.4, 0.3] \quad b \in [-22.83, -14.83]$

C. $m \in [-2.4, 0.3] \quad b \in [11, 18]$

D. $m \in [-2.4, 0.3] \quad b \in [-9, -4]$

E. $m \in [-2.4, 0.3] \quad b \in [20.83, 25.83]$

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

solution.

$$-18(13x - 2) = -19(3x + 6)$$

A. $x \in [0.39, 0.62]$

B. $x \in [-0.46, -0.28]$

C. $x \in [0.81, 1]$

D. $x \in [-0.36, -0.24]$

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 $5x + 3y = 12$ and passing through the point $(10, -7)$.

   A. $m \in [-0.13, 1.47]$ $b \in [-22, -15]$

   B. $m \in [-0.13, 1.47]$ $b \in [-13, -9]$

   C. $m \in [-1.48, -0.09]$ $b \in [-3, 0]$

   D. $m \in [-0.13, 1.47]$ $b \in [12, 14]$

   E. $m \in [1.61, 2.34]$ $b \in [-13, -9]$

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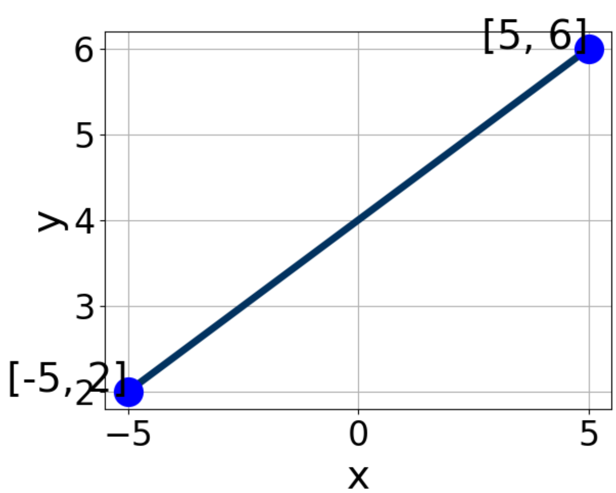
5. Write the equation of the line in the graph below in Standard form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and $C$.



A. $A \in [-2.1, -0.7]$, $B \in [4.9, 7.1]$, and $C \in [18, 25]$

B. $A \in [-1.7, -0.2]$, $B \in [-2.5, 0.8]$, and $C \in [-6, 2]$

C. $A \in [1.3, 3.7]$, $B \in [4.9, 7.1]$, and $C \in [18, 25]$

D. $A \in [1.3, 3.7]$, $B \in [-7.6, -3.4]$, and $C \in [-21, -16]$

E. $A \in [-1.7, -0.2]$, $B \in [-0.5, 2.9]$, and $C \in [0, 5]$

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6. 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 $4x + 9y = 13$ and passing through the point $(6, -7)$.

A. $m \in [0.6, 3.7]$ $b \in [-20.5, -17.5]$

B. $m \in [0.6, 3.7]$ $b \in [14.5, 25.5]$

C. $m \in [0.6, 3.7]$ $b \in [-15, -9]$

D. $m \in [-2.2, 1.4]$ $b \in [-20.5, -17.5]$

E. $m \in [-2.3, -2.1]$ $b \in [6.5, 8.5]$

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7. 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 $b$.

$$(-7, -7) \text{ and } (4, -10)$$

A. $m \in [-0.88, -0.2]$ $b \in [-16.8, -11.2]$

B. $m \in [0.18, 0.57]$ $b \in [-12.3, -9.3]$

C. $m \in [-0.88, -0.2]$ $b \in [-3.5, 0.8]$

D. $m \in [-0.88, -0.2]$ $b \in [-10.7, -6.9]$

E. $m \in [-0.88, -0.2]$ $b \in [6.8, 10.1]$

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

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

   A. $x \in [-4.24, -3.2]$

   B. $x \in [-14.7, -14.31]$

   C. $x \in [-3.18, -2.02]$

   D. $x \in [-1.99, -0.58]$

   E. There are no real solutions.

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

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

   A. $x \in [1.14, 4.14]$

   B. $x \in [1200, 1202]$

   C. $x \in [253, 258]$

   D. $x \in [157, 159]$

   E. There are no real solutions.

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

$$-3(-14x+10) = -12(4x-15)$$

   A. $x \in [-3, -1.6]$

   B. $x \in [0.7, 2.1]$

   C. $x \in [2.2, 2.7]$

   D. $x \in [24.1, 25.3]$

   E. There are no real solutions.

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