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

$$-19(11x - 10) = -3(13x - 18)$$

A. $x \in [0.98, 1.12]$

B. $x \in [-1.65, -1.25]$

C. $x \in [1.37, 1.6]$

D. $x \in [0.74, 0.91]$

E. There are no real solutions.

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2. 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 $5x - 8y = 11$ and passing through the point $(9, -6)$.

A. $m \in [-2.1, -0.83]$ $b \in [8.4, 9.4]$

B. $m \in [-1.19, 0.25]$ $b \in [8.4, 9.4]$

C. $m \in [-2.1, -0.83]$ $b \in [-11.4, -5.4]$

D. $m \in [1.04, 1.72]$ $b \in [-24.4, -19.4]$

E. $m \in [-2.1, -0.83]$ $b \in [-19, -13]$

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3. 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 $9x - 5y = 7$ and passing through the point $(9, -6)$.

A. $m \in [-0.89, -0.22]$ $b \in [-17.2, -13.8]$

B. $m \in [-0.89, -0.22]$ $b \in [-1.6, 0.6]$

C. $m \in [-2.82, -1.63]$ $b \in [-1.6, 0.6]$

D. $m \in [-0.89, -0.22]$ $b \in [0.5, 1.1]$

E. $m \in [-0.05, 1]$ $b \in [-11.9, -9.5]$

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.

$$(4, -11) \text{ and } (-9, -4)$$

A. $m \in [-2.3, -0.5]$ $b \in [7.85, 10.85]$

B. $m \in [-2.3, -0.5]$ $b \in [-24, -9]$

C. $m \in [-2.3, -0.5]$ $b \in [-11.85, -6.85]$

D. $m \in [0.1, 4]$ $b \in [-1.15, 1.85]$

E. $m \in [-2.3, -0.5]$ $b \in [2, 6]$

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

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

A. $x \in [-0.4, 1.6]$

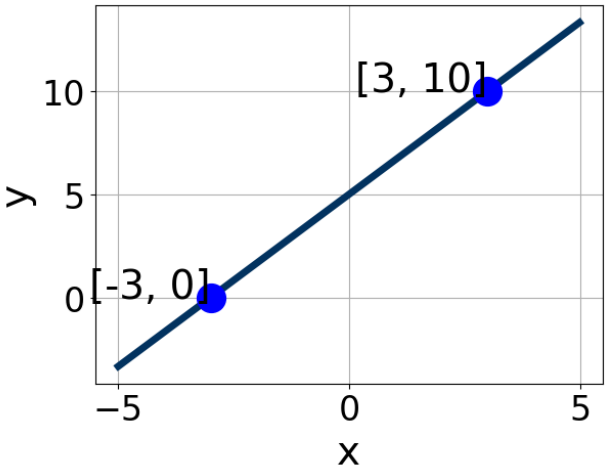
B. $x \in [3.9, 5.1]$

C. $x \in [20, 22.4]$

D. $x \in [7, 9.4]$

E. There are no real solutions.

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. $A \in [4, 13]$, $B \in [-3.31, -1.73]$, and $C \in [-17, -12]$

B. $A \in [4, 13]$, $B \in [1.78, 3.94]$, and $C \in [10, 19]$

C. $A \in [-4.67, 0.33]$, $B \in [-1.23, -0.82]$, and $C \in [-6, -4]$

D. $A \in [-4.67, 0.33]$, $B \in [-0.18, 1.31]$, and $C \in [3, 8]$

E. $A \in [-5, -3]$, $B \in [1.78, 3.94]$, and $C \in [10, 19]$

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

$$-2(17x + 14) = -13(-16x - 11)$$

A. $x \in [-0.51, -0.45]$

B. $x \in [-0.71, -0.67]$

C. $x \in [0.47, 0.56]$

D. $x \in [-0.69, -0.63]$

E. There are no real solutions.

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

$$\frac{4x + 6}{5} - \frac{-7x - 8}{6} = \frac{9x - 3}{2}$$

A. $x \in [0.8, 2]$

B. $x \in [-3.5, -1.2]$

C. $x \in [5.9, 7]$

D. $x \in [-0.1, 0.8]$

E. There are no real solutions.

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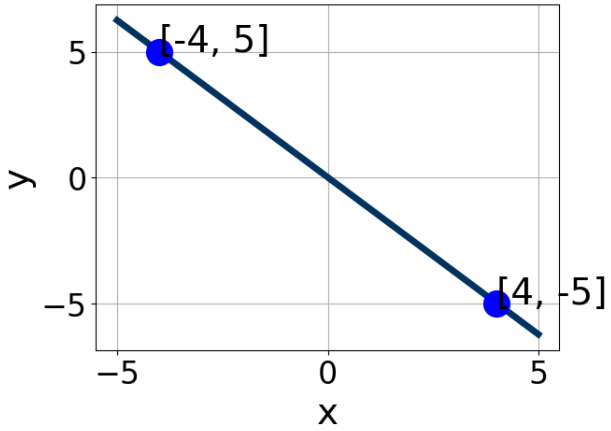
9. Write the equation of the line in the graph below in Standard form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.



A. $A \in [2, 7.8]$, $B \in [-6.3, -3.1]$, and $C \in [-4, 3]$

B. $A \in [2, 7.8]$, $B \in [3.1, 5.7]$, and $C \in [-4, 3]$

C. $A \in [-6.7, -4.7]$, $B \in [-6.3, -3.1]$, and $C \in [-4, 3]$

D. $A \in [-1.2, 3.7]$, $B \in [-1.7, -0.3]$, and $C \in [-4, 3]$

E. $A \in [-1.2, 3.7]$, $B \in [-0.2, 3.7]$, and $C \in [-4, 3]$

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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.

$$(5, -3) \text{ and } (-9, -7)$$

A. $m \in [-0.22, 1.37]$ $b \in [-4.78, -3.52]$

B. $m \in [-0.22, 1.37]$ $b \in [1.97, 2.66]$

C. $m \in [-0.22, 1.37]$ $b \in [3.71, 4.84]$

D. $m \in [-0.22, 1.37]$ $b \in [-9.21, -7.78]$

E. $m \in [-0.83, -0.19]$ $b \in [-10.39, -8.71]$
