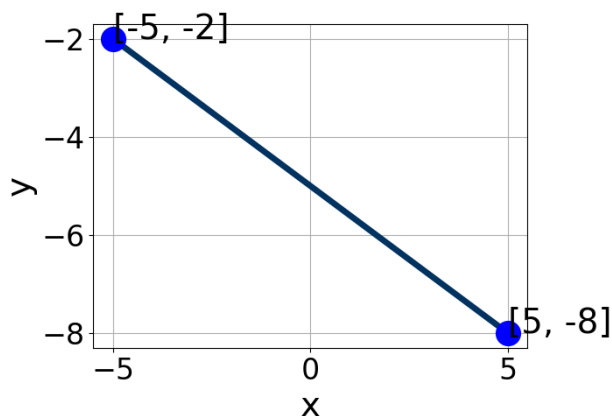


1. Write the equation of the line in the graph below in Standard form  $Ax + By = C$ . Then, choose the intervals that contain  $A$ ,  $B$ , and  $C$ .



- A.  $A \in [1.1, 6.8]$ ,  $B \in [4.4, 5.7]$ , and  $C \in [-29, -21]$   
B.  $A \in [-1.5, 1.1]$ ,  $B \in [0.7, 4.2]$ , and  $C \in [-5, -4]$   
C.  $A \in [1.1, 6.8]$ ,  $B \in [-6.3, -1.8]$ , and  $C \in [25, 30]$   
D.  $A \in [-4.2, -0.7]$ ,  $B \in [-6.3, -1.8]$ , and  $C \in [25, 30]$   
E.  $A \in [-1.5, 1.1]$ ,  $B \in [-1.4, 0.7]$ , and  $C \in [5, 8]$

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

$$-17(6x - 18) = -13(9x + 5)$$

- A.  $x \in [-27.73, -23.73]$   
B.  $x \in [-20.07, -15.07]$   
C.  $x \in [-1.9, 3.1]$   
D.  $x \in [15.07, 18.07]$   
E. There are no real solutions.

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

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

- A.  $x \in [6.6, 7.2]$
  - B.  $x \in [-18.5, -15.4]$
  - C.  $x \in [-1.3, 0.4]$
  - D.  $x \in [7.9, 9]$
  - E. There are no real solutions.
- 

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

- A.  $m \in [-1.6, 0.4]$   $b \in [-12.2, -4.2]$
  - B.  $m \in [-1.6, 0.4]$   $b \in [5.2, 12.2]$
  - C.  $m \in [-0.4, 2.6]$   $b \in [0.2, 2.2]$
  - D.  $m \in [-1.6, 0.4]$   $b \in [3, 7]$
  - E.  $m \in [-2.67, -0.67]$   $b \in [-12.2, -4.2]$
- 

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  $b$ .

$(-8, 10)$  and  $(3, -6)$

- A.  $m \in [-1.96, -0.4]$   $b \in [0.94, 2.54]$
  - B.  $m \in [-1.96, -0.4]$   $b \in [-9.18, -7.8]$
  - C.  $m \in [1.03, 1.61]$   $b \in [-10.99, -9.32]$
  - D.  $m \in [-1.96, -0.4]$   $b \in [17.79, 19]$
  - E.  $m \in [-1.96, -0.4]$   $b \in [-2.83, -0.36]$
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6. Solve the linear equation below. Then, choose the interval that contains the solution.

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

- A.  $x \in [-15.2, -14.3]$
  - B.  $x \in [-56.2, -55.7]$
  - C.  $x \in [-7.1, -4.6]$
  - D.  $x \in [-3.9, -2.2]$
  - E. There are no real solutions.
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7. 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  $8x - 7y = 15$  and passing through the point  $(-8, 6)$ .

- A.  $m \in [-1.1, -0.61]$   $b \in [0.86, 1.16]$
  - B.  $m \in [-1.37, -0.95]$   $b \in [-2.09, -0.58]$
  - C.  $m \in [-1.1, -0.61]$   $b \in [13.5, 14.51]$
  - D.  $m \in [-1.1, -0.61]$   $b \in [-2.09, -0.58]$
  - E.  $m \in [0.76, 1.11]$   $b \in [12.58, 13.02]$
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8. Solve the equation below. Then, choose the interval that contains the solution.

$$-12(6x + 14) = -8(-18x - 5)$$

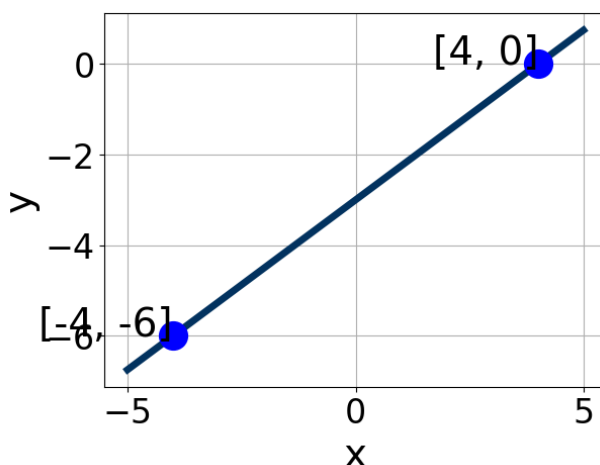
- A.  $x \in [-0.7, -0.4]$
  - B.  $x \in [1.56, 2.02]$
  - C.  $x \in [0.31, 0.64]$
  - D.  $x \in [-1.27, -0.88]$
  - E. There are no real solutions.
-

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  $b$ .

$$(-3, -11) \text{ and } (-7, -9)$$

- A.  $m \in [-0.9, -0.3]$   $b \in [12.2, 15.9]$   
B.  $m \in [-0.9, -0.3]$   $b \in [-9.9, -7.3]$   
C.  $m \in [-0.9, -0.3]$   $b \in [-2.8, -0.2]$   
D.  $m \in [-0.9, -0.3]$   $b \in [-14.3, -10.7]$   
E.  $m \in [-0.4, 2.4]$   $b \in [-7.5, -2.5]$
- 

10. 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.  $A \in [2.6, 4.1]$ ,  $B \in [-5, -3]$ , and  $C \in [9, 16]$   
B.  $A \in [-1.6, 2.3]$ ,  $B \in [0, 2]$ , and  $C \in [-8, 1]$   
C.  $A \in [-1.6, 2.3]$ ,  $B \in [-1, 0]$ , and  $C \in [1, 7]$   
D.  $A \in [-3.2, -2.8]$ ,  $B \in [3, 6]$ , and  $C \in [-12, -10]$   
E.  $A \in [2.6, 4.1]$ ,  $B \in [3, 6]$ , and  $C \in [-12, -10]$
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