

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

$$-19(7x + 15) = -9(-18x + 12)$$

- A.  $x \in [13.34, 13.68]$
  - B.  $x \in [-1.27, -0.5]$
  - C.  $x \in [1.27, 1.56]$
  - D.  $x \in [-1.41, -1.14]$
  - E. There are no real solutions.
- 

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

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

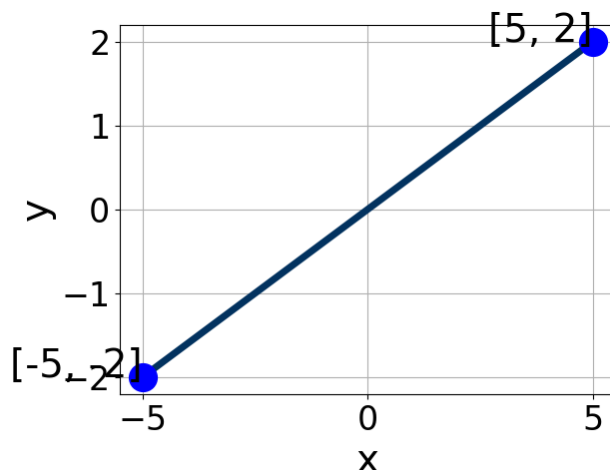
- A.  $x \in [1.4, 2.3]$
  - B.  $x \in [2.6, 3.8]$
  - C.  $x \in [5.4, 6.1]$
  - D.  $x \in [0.1, 1.6]$
  - E. There are no real solutions.
- 

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

$$-3(14x - 17) = -2(9x + 8)$$

- A.  $x \in [-2.3, -1.25]$
  - B.  $x \in [-0.39, 0.8]$
  - C.  $x \in [1.11, 1.92]$
  - D.  $x \in [2.61, 2.83]$
  - E. There are no real solutions.
-

4. 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.  $A \in [1, 6]$ ,  $B \in [-5.92, -3.55]$ , and  $C \in [-4, 2]$   
 B.  $A \in [-1.4, 0.6]$ ,  $B \in [-1.42, -0.34]$ , and  $C \in [-4, 2]$   
 C.  $A \in [-1.4, 0.6]$ ,  $B \in [0.32, 1.3]$ , and  $C \in [-4, 2]$   
 D.  $A \in [1, 6]$ ,  $B \in [4.42, 5.49]$ , and  $C \in [-4, 2]$   
 E.  $A \in [-4, -1]$ ,  $B \in [4.42, 5.49]$ , and  $C \in [-4, 2]$

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

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

- A.  $x \in [-9, -7.6]$   
 B.  $x \in [-1.4, 1.1]$   
 C.  $x \in [-2.8, -1.3]$   
 D.  $x \in [1, 1.4]$   
 E. There are no real solutions.

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  $8x - 3y = 8$  and passing through the point  $(4, -6)$ .

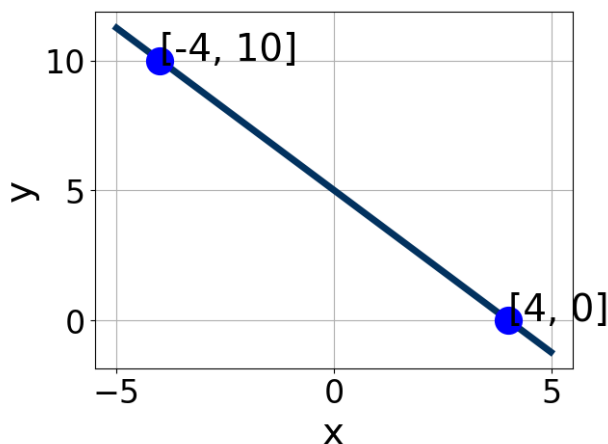
- A.  $m \in [-3.2, -1.3]$   $b \in [-6.2, -3.3]$
- B.  $m \in [0.2, 2.5]$   $b \in [-7.6, -6.2]$
- C.  $m \in [-0.9, -0.2]$   $b \in [-11.6, -8.7]$
- D.  $m \in [-0.9, -0.2]$   $b \in [2.3, 6]$
- E.  $m \in [-0.9, -0.2]$   $b \in [-6.2, -3.3]$

- 
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  $8x - 5y = 4$  and passing through the point  $(2, 7)$ .

- A.  $m \in [-3.76, -1.18]$   $b \in [8.24, 8.42]$
- B.  $m \in [-0.77, -0.08]$   $b \in [4.61, 5.39]$
- C.  $m \in [-0.77, -0.08]$   $b \in [-8.35, -7.75]$
- D.  $m \in [0.01, 1.4]$   $b \in [5.73, 5.85]$
- E.  $m \in [-0.77, -0.08]$   $b \in [8.24, 8.42]$

- 
8. 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.  $A \in [-0.75, 3.25]$ ,  $B \in [-2, 0.3]$ , and  $C \in [-7, -2]$
  - B.  $A \in [3, 8]$ ,  $B \in [3.5, 7.3]$ , and  $C \in [18, 21]$
  - C.  $A \in [3, 8]$ ,  $B \in [-4.4, -1.5]$ , and  $C \in [-26, -15]$
  - D.  $A \in [-9, 1]$ ,  $B \in [-4.4, -1.5]$ , and  $C \in [-26, -15]$
  - E.  $A \in [-0.75, 3.25]$ ,  $B \in [-0.5, 2.9]$ , and  $C \in [0, 7]$
- 

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  $b$ .

$(7, -2)$  and  $(-8, 3)$

- A.  $m \in [-0.87, 0.22]$   $b \in [10.72, 11.39]$
  - B.  $m \in [-0.87, 0.22]$   $b \in [-0.14, 0.73]$
  - C.  $m \in [-0.87, 0.22]$   $b \in [-1, 0.27]$
  - D.  $m \in [-0.01, 1.14]$   $b \in [5.32, 6.4]$
  - E.  $m \in [-0.87, 0.22]$   $b \in [-9.53, -8.79]$
- 

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  $b$ .

$(-7, 10)$  and  $(10, -7)$

- A.  $m \in [-4, 0]$   $b \in [-1, 12]$
  - B.  $m \in [0, 4]$   $b \in [-19, -14]$
  - C.  $m \in [-4, 0]$   $b \in [-19, -14]$
  - D.  $m \in [-4, 0]$   $b \in [15, 24]$
  - E.  $m \in [-4, 0]$   $b \in [-7, -2]$
-