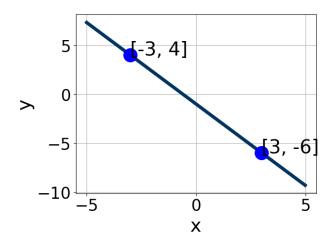
Progress Quiz 5

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

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

- A.  $x \in [-1.7, -0.6]$
- B.  $x \in [1.5, 2.4]$
- C.  $x \in [10.9, 12.8]$
- D.  $x \in [0.2, 0.8]$
- E. There are no real solutions.
- 2. 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.  $A \in [0, 2.2], B \in [0.94, 2.57], \text{ and } C \in [-1.2, -0.8]$
- B.  $A \in [2.5, 5.2], B \in [-3.82, -2.9], \text{ and } C \in [2.3, 5]$
- C.  $A \in [2.5, 5.2], B \in [2.07, 3.41], \text{ and } C \in [-6.6, -2]$
- D.  $A \in [-6.9, -2.9], B \in [-3.82, -2.9], \text{ and } C \in [2.3, 5]$
- E.  $A \in [0, 2.2], B \in [-1.51, -0.08], \text{ and } C \in [-0.8, 1.3]$
- 3. Solve the equation below. Then, choose the interval that contains the solution.

$$-6(-16x - 9) = -4(10x - 11)$$

9912-2038

Progress Quiz 5

A. 
$$x \in [-1.9, -1.1]$$

B. 
$$x \in [0.6, 1.5]$$

C. 
$$x \in [-0.3, 0.2]$$

D. 
$$x \in [-1.7, -0.3]$$

- E. There are no real solutions.
- 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.

$$(-10,2)$$
 and  $(6,-9)$ 

A. 
$$m \in [-1.44, 0.13]$$
  $b \in [-16.3, -13.7]$ 

B. 
$$m \in [-1.44, 0.13]$$
  $b \in [9.9, 15.6]$ 

C. 
$$m \in [-1.44, 0.13]$$
  $b \in [-6.9, -3]$ 

D. 
$$m \in [-0.56, 1.01]$$
  $b \in [-14.5, -10.5]$ 

E. 
$$m \in [-1.44, 0.13]$$
  $b \in [1.6, 7]$ 

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.

$$(-4,6)$$
 and  $(-2,3)$ 

A. 
$$m \in [-0.5, 2.6]$$
  $b \in [5.85, 7.27]$ 

B. 
$$m \in [-4.1, 0.5]$$
  $b \in [-1.47, 0.3]$ 

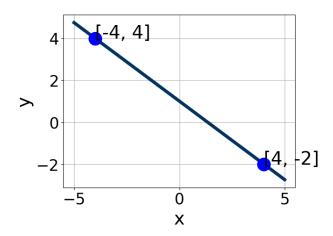
C. 
$$m \in [-4.1, 0.5]$$
  $b \in [4.78, 5.84]$ 

D. 
$$m \in [-4.1, 0.5]$$
  $b \in [-1.47, 0.3]$ 

E. 
$$m \in [-4.1, 0.5]$$
  $b \in [9.92, 11.12]$ 

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.

Progress Quiz 5



- A.  $A \in [1.6, 5.3], B \in [-5.22, -3.84], \text{ and } C \in [-5.79, -3.85]$
- B.  $A \in [-1, 2.2], B \in [-3.39, 0.19], \text{ and } C \in [-1.89, -0.73]$
- C.  $A \in [1.6, 5.3], B \in [2.54, 4.5], \text{ and } C \in [3.4, 4.08]$
- D.  $A \in [-3.5, -2.7], B \in [-5.22, -3.84], \text{ and } C \in [-5.79, -3.85]$
- E.  $A \in [-1, 2.2], B \in [0.29, 1.96], \text{ and } C \in [0.72, 1.37]$
- 7. Solve the equation below. Then, choose the interval that contains the solution.

$$-16(-10x - 4) = -13(-17x - 6)$$

- A.  $x \in [2.03, 2.39]$
- B.  $x \in [-2.91, -1.84]$
- C.  $x \in [-0.96, -0.37]$
- D.  $x \in [-0.28, 0.4]$
- E. There are no real solutions.
- 8. 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.

Parallel to 7x + 3y = 3 and passing through the point (-3, 2).

A. 
$$m \in [-3.33, -1.33]$$
  $b \in [1, 7]$ 

B. 
$$m \in [-0.43, 1.57]$$
  $b \in [-5, 1]$ 

C. 
$$m \in [-3.33, -1.33]$$
  $b \in [-5, 1]$ 

D. 
$$m \in [2.33, 7.33]$$
  $b \in [6, 11]$ 

E. 
$$m \in [-3.33, -1.33]$$
  $b \in [1, 7]$ 

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

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

A. 
$$x \in [1, 2]$$

B. 
$$x \in [-4.5, -2.8]$$

C. 
$$x \in [-1.9, -0.8]$$

D. 
$$x \in [-2.6, -1.8]$$

- E. There are no real solutions.
- 10. 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.

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

A. 
$$m \in [-1.42, -0.58]$$
  $b \in [8.53, 9.81]$ 

B. 
$$m \in [0.54, 0.75]$$
  $b \in [1.16, 2.09]$ 

C. 
$$m \in [0.54, 0.75]$$
  $b \in [-1.14, -0.76]$ 

D. 
$$m \in [0.54, 0.75]$$
  $b \in [-1.67, -1.11]$ 

E. 
$$m \in [1.08, 2.03]$$
  $b \in [1.16, 2.09]$