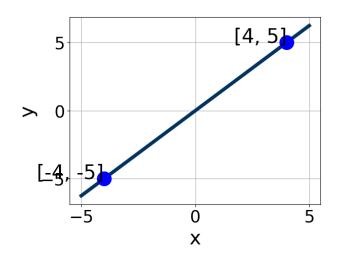
Progress Quiz 7

1. 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.

$$(-6,2)$$
 and  $(-8,-9)$ 

- A.  $m \in [1.5, 6.5]$   $b \in [-10, 1]$
- B.  $m \in [-7.5, -1.5]$   $b \in [-53, -50]$
- C.  $m \in [1.5, 6.5]$   $b \in [8, 18]$
- D.  $m \in [1.5, 6.5]$   $b \in [-38, -29]$
- E.  $m \in [1.5, 6.5]$   $b \in [30, 36]$
- 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.  $A \in [2.5, 6.6], B \in [3.92, 5.01], \text{ and } C \in [0, 2]$
- B.  $A \in [2.5, 6.6], B \in [-4.36, -2.62], \text{ and } C \in [0, 2]$
- C.  $A \in [-2.1, 0.6], B \in [0.45, 2.18], \text{ and } C \in [0, 2]$
- D.  $A \in [-5.8, -3.5], B \in [3.92, 5.01], \text{ and } C \in [0, 2]$
- E.  $A \in [-2.1, 0.6], B \in [-2.37, -0.85], \text{ and } C \in [0, 2]$

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

$$-7(18x+11) = -14(6x+5)$$

- A.  $x \in [3.35, 3.78]$
- B.  $x \in [-0.42, 0.59]$
- C.  $x \in [-3.78, -3.48]$
- D.  $x \in [-0.83, -0.38]$
- E. There are no real solutions.
- 4. Solve the equation below. Then, choose the interval that contains the solution.

$$-19(-12x+16) = -7(2x+15)$$

- A.  $x \in [1.73, 2.49]$
- B.  $x \in [-1.95, -1.6]$
- C.  $x \in [0.24, 1.44]$
- D.  $x \in [1.37, 1.7]$
- E. There are no real solutions.
- 5. 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 7x + 3y = 7 and passing through the point (-6, -5).

- A.  $m \in [2.11, 2.89]$   $b \in [-4.5, -0.1]$
- B.  $m \in [0.3, 0.47]$   $b \in [-0.1, 1.9]$
- C.  $m \in [-0.76, -0.31]$   $b \in [-8.2, -5.3]$
- D.  $m \in [0.3, 0.47]$   $b \in [-4.5, -0.1]$
- E.  $m \in [0.3, 0.47]$   $b \in [1.7, 5.1]$

6. 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.

$$(-3,6)$$
 and  $(11,-8)$ 

- A.  $m \in [0.68, 1.32]$   $b \in [-19, -18]$
- B.  $m \in [-1.02, -0.87]$   $b \in [-3, -2]$
- C.  $m \in [-1.02, -0.87]$   $b \in [1, 4]$
- D.  $m \in [-1.02, -0.87]$   $b \in [-19, -18]$
- E.  $m \in [-1.02, -0.87]$   $b \in [4, 11]$
- 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 3x-7y=10 and passing through the point (-5,-5).

- A.  $m \in [-1.3, 2]$   $b \in [-17.67, -10.67]$
- B.  $m \in [-3.6, -1]$   $b \in [-17.67, -10.67]$
- C.  $m \in [-3.6, -1]$   $b \in [-1, 5]$
- D.  $m \in [-3.6, -1]$   $b \in [15.67, 21.67]$
- E.  $m \in [1, 2.6]$   $b \in [2.67, 8.67]$
- 8. Solve the linear equation below. Then, choose the interval that contains the solution.

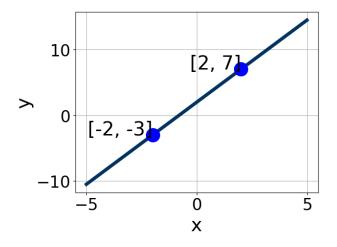
$$\frac{3x-3}{7} - \frac{8x-4}{5} = \frac{-7x+6}{4}$$

- A.  $x \in [2.2, 6.4]$
- B.  $x \in [1.5, 2.4]$
- C.  $x \in [7.7, 8.8]$
- D.  $x \in [-1.2, 1.9]$
- E. There are no real solutions.

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

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

- A.  $x \in [12.84, 16.84]$
- B.  $x \in [-16.04, -12.04]$
- C.  $x \in [52, 57]$
- D.  $x \in [-5.15, 1.85]$
- E. There are no real solutions.
- 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.  $A \in [-2.5, 1.5], B \in [-0.39, 1.08], \text{ and } C \in [-1, 2.3]$
- B.  $A \in [-2.5, 1.5], B \in [-1.45, 0.59], \text{ and } C \in [-2.5, -1.3]$
- C.  $A \in [1, 11], B \in [1.79, 2.56], \text{ and } C \in [2.3, 5.7]$
- $\text{D. } A \in [1,11], \ B \in [-4.38,-1.89], \ \text{and} \ \ C \in [-6.8,-3.2]$
- E.  $A \in [-5, -3]$ ,  $B \in [1.79, 2.56]$ , and  $C \in [2.3, 5.7]$