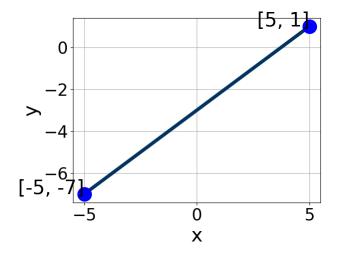
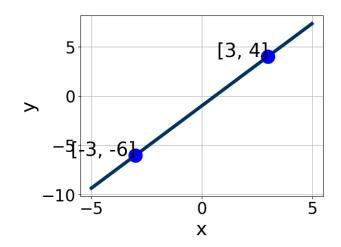
Progress Quiz 1

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. $A \in [-1.8, 2.2], B \in [-0.2, 2.7], \text{ and } C \in [-3, -2]$
- B. $A \in [3, 13], B \in [2.6, 5.3], \text{ and } C \in [-16, -12]$
- C. $A \in [-4, -1], B \in [2.6, 5.3], \text{ and } C \in [-16, -12]$
- D. $A \in [-1.8, 2.2], B \in [-1.1, -0.1], \text{ and } C \in [1, 4]$
- E. $A \in [3, 13], B \in [-8.7, -2], \text{ and } C \in [9, 17]$
- 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. $A \in [-7.9, -4.6], B \in [2.45, 3.93], \text{ and } C \in [-3.54, -2.43]$

3735-1698 Spring 2021

Progress Quiz 1 Version B

B.
$$A \in [4.8, 5.8], B \in [2.45, 3.93], \text{ and } C \in [-3.54, -2.43]$$

C.
$$A \in [-4, -0.8], B \in [-1.83, 0.68], \text{ and } C \in [0.46, 1.89]$$

D.
$$A \in [4.8, 5.8], B \in [-3.03, -1.89], \text{ and } C \in [2.5, 3.87]$$

E.
$$A \in [-4, -0.8], B \in [0.88, 1.98], \text{ and } C \in [-1.9, 0.29]$$

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 7x + 8y = 11 and passing through the point (-4, 6).

A.
$$m \in [1.12, 1.35]$$
 $b \in [-11.04, -10.43]$

B.
$$m \in [1.12, 1.35]$$
 $b \in [9.9, 10.48]$

C.
$$m \in [0.51, 1.09]$$
 $b \in [10.26, 11.23]$

D.
$$m \in [1.12, 1.35]$$
 $b \in [10.26, 11.23]$

E.
$$m \in [-1.3, -1.04]$$
 $b \in [-0.01, 2.22]$

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.

$$(-8,9)$$
 and $(-3,-4)$

A.
$$m \in [-3.6, -0.6]$$
 $b \in [9.8, 16.8]$

B.
$$m \in [-3.6, -0.6]$$
 $b \in [-8, 0]$

C.
$$m \in [-2.4, 3.6]$$
 $b \in [2.8, 6.8]$

D.
$$m \in [-3.6, -0.6]$$
 $b \in [16, 20]$

E.
$$m \in [-3.6, -0.6]$$
 $b \in [-11.8, -10.8]$

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

$$-8(18x+3) = -9(-10x+2)$$

3735-1698 Spring 2021

A.
$$x \in [-0.31, -0.15]$$

B.
$$x \in [-0.07, -0.02]$$

C.
$$x \in [0.06, 0.23]$$

D.
$$x \in [-0.86, -0.73]$$

- 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.

Parallel to 3x - 4y = 5 and passing through the point (-7, -10).

A.
$$m \in [0.4, 1.32]$$
 $b \in [2.8, 6]$

B.
$$m \in [1.04, 1.99]$$
 $b \in [-6, -4.1]$

C.
$$m \in [0.4, 1.32]$$
 $b \in [-3.2, -1.3]$

D.
$$m \in [0.4, 1.32]$$
 $b \in [-6, -4.1]$

E.
$$m \in [-0.92, -0.49]$$
 $b \in [-15.4, -15]$

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

$$-9(5x-4) = -16(-15x-3)$$

A.
$$x \in [-0.3, -0.1]$$

B.
$$x \in [-0.67, -0.31]$$

C.
$$x \in [0.12, 0.41]$$

D.
$$x \in [-0.17, 0.04]$$

- E. There are no real solutions.
- 8. Solve the linear equation below. Then, choose the interval that contains the solution.

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

A.
$$x \in [5.18, 6.98]$$

B.
$$x \in [-1.7, -0.92]$$

C.
$$x \in [1.74, 2.35]$$

D.
$$x \in [0.45, 1.14]$$

- 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.

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

A.
$$m \in [-1.12, 0]$$
 $b \in [-19.4, -16.8]$

B.
$$m \in [-1.12, 0]$$
 $b \in [5.7, 7.1]$

C.
$$m \in [-1.12, 0]$$
 $b \in [-7, -3.3]$

D.
$$m \in [-1.12, 0]$$
 $b \in [3.9, 6.3]$

E.
$$m \in [0.33, 0.65]$$
 $b \in [0.1, 2.4]$

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

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

A.
$$x \in [15.7, 17.7]$$

B.
$$x \in [40, 45]$$

C.
$$x \in [-2.75, 1.25]$$

D.
$$x \in [32.3, 38.3]$$

E. There are no real solutions.