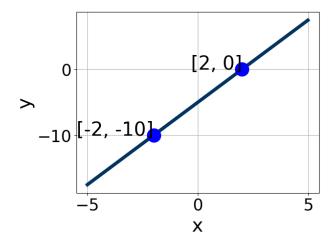
Progress Quiz 1

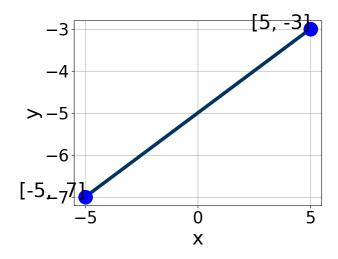
Version A

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. $A \in [1.9, 9.1], B \in [-2.93, -1.9], \text{ and } C \in [9.5, 11.3]$
- B. $A \in [-4.5, -1.5], B \in [0.93, 1.87], \text{ and } C \in [-6.3, -3.6]$
- C. $A \in [-5.6, -3.6], B \in [1.99, 2.33], \text{ and } C \in [-12.1, -9.9]$
- D. $A \in [-4.5, -1.5], B \in [-1.01, -0.52], \text{ and } C \in [3.8, 5.3]$
- E. $A \in [1.9, 9.1], B \in [1.99, 2.33], \text{ and } C \in [-12.1, -9.9]$

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. $A \in [1.82, 4.08], B \in [1.6, 5.7], \text{ and } C \in [-33, -23]$

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B.
$$A \in [-1.02, 0.23], B \in [0.6, 1.7], \text{ and } C \in [-5, -1]$$

C.
$$A \in [-3.33, -1.68], B \in [1.6, 5.7], \text{ and } C \in [-33, -23]$$

D.
$$A \in [-1.02, 0.23], B \in [-2, 0.1], \text{ and } C \in [-1, 6]$$

E.
$$A \in [1.82, 4.08], B \in [-5.1, -3.2], \text{ and } C \in [23, 30]$$

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 5x + 6y = 15 and passing through the point (6, 8).

A.
$$m \in [0.31, 1.12]$$
 $b \in [0.4, 1.6]$

B.
$$m \in [1.13, 2.89]$$
 $b \in [-1.2, 0.6]$

C.
$$m \in [-1.53, -0.91]$$
 $b \in [12.4, 15.9]$

D.
$$m \in [1.13, 2.89]$$
 $b \in [1.6, 4.4]$

E.
$$m \in [1.13, 2.89]$$
 $b \in [0.4, 1.6]$

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.

$$(-10, -8)$$
 and $(-7, 7)$

A.
$$m \in [5, 6]$$
 $b \in [13, 19]$

B.
$$m \in [5, 6]$$
 $b \in [41, 45]$

C.
$$m \in [-7, -2]$$
 $b \in [-35, -26]$

D.
$$m \in [5, 6]$$
 $b \in [-46, -39]$

E.
$$m \in [5, 6]$$
 $b \in [1, 8]$

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

$$-19(2x - 9) = -7(-15x + 16)$$

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A.
$$x \in [-0.64, 0.02]$$

B.
$$x \in [0.2, 0.62]$$

C.
$$x \in [-0.96, -0.79]$$

D.
$$x \in [1.54, 2.19]$$

- 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 5x + 4y = 14 and passing through the point (5, -10).

A.
$$m \in [-0.86, -0.35]$$
 $b \in [-7.11, -4.81]$

B.
$$m \in [0.91, 1.81]$$
 $b \in [-14.05, -13.3]$

C.
$$m \in [0.41, 1.11]$$
 $b \in [-14.05, -13.3]$

D.
$$m \in [0.41, 1.11]$$
 $b \in [13.34, 14.87]$

E.
$$m \in [0.41, 1.11]$$
 $b \in [-15.08, -14.34]$

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

$$-14(13x+12) = -3(15x+2)$$

A.
$$x \in [-1.27, -1.05]$$

B.
$$x \in [-0.86, -0.75]$$

C.
$$x \in [1.26, 1.29]$$

D.
$$x \in [-1.3, -1.22]$$

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

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

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A.
$$x \in [-5.88, -0.88]$$

B.
$$x \in [-1.16, 0.84]$$

C.
$$x \in [0.38, 5.38]$$

D.
$$x \in [-37, -31]$$

- 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.

$$(-4, -8)$$
 and $(5, -10)$

A.
$$m \in [-0.35, -0.06]$$
 $b \in [-4.5, -1.3]$

B.
$$m \in [-0.14, 0.49]$$
 $b \in [-12.8, -9.9]$

C.
$$m \in [-0.35, -0.06]$$
 $b \in [-10.9, -8.8]$

D.
$$m \in [-0.35, -0.06]$$
 $b \in [-18.1, -14.9]$

E.
$$m \in [-0.35, -0.06]$$
 $b \in [7.5, 10.5]$

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

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

A.
$$x \in [-8.83, -4.83]$$

B.
$$x \in [-21.5, -17.5]$$

C.
$$x \in [-1.28, 0.72]$$

D.
$$x \in [9.33, 11.33]$$

E. There are no real solutions.