

Directions: Select the choice that best answers each question.

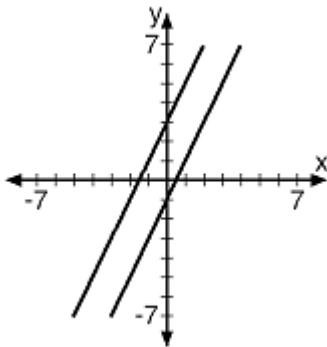
1. Which of the following statements is true about the linear equation  $y = -2x + 5$ ?

- A The slope is 2 and the y-intercept is 5.
- B The slope is 5 and the y-intercept is -2.
- C The slope is -2 and the y-intercept is 5.
- D The slope is 5 and the y-intercept is 2.

2. What is the solution to the equation below?  
 $3x + 2 = 7x - 10$

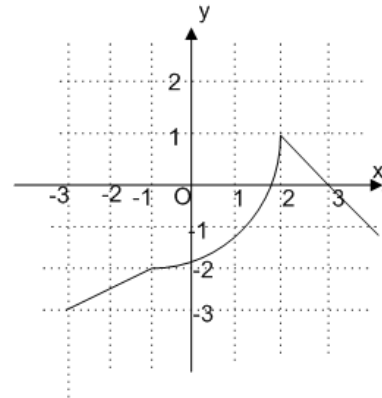
- A 2
- B 3
- C 4
- D No Solution

3. What is the solution to the system of the equations graphed below?



- A (0, 3)
- B (0, -1)
- C No Solution
- D Infinite Many Solutions

4. Based on the graph below, which of the following statements is true?



- A It is a non-linear function.
- B It is a linear function.
- C It is not a function.
- D None of the above.

5. In the diagram shown to the right, parallel lines are cut by a transversal. The measure of  $\angle 1 = 110^\circ$ . What is the measure of  $\angle 7$ ?

Answer \_\_\_\_\_

How did you determine your answer?

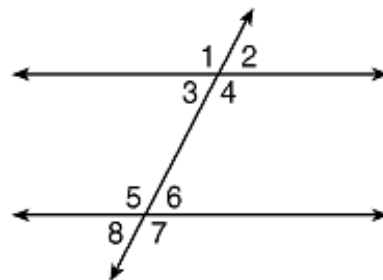
---



---



---

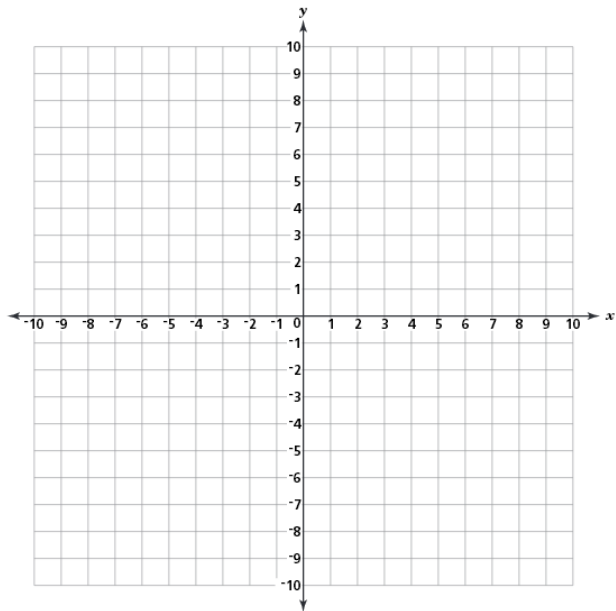


Short Answer: Show all of your work. You may use a calculator.

6. Solve the system of equations graphically.

$$y = \frac{1}{2}x - 3$$

$$y = -3x + 4$$



**Solution** \_\_\_\_\_

7. Solve the following system of equations using substitution.

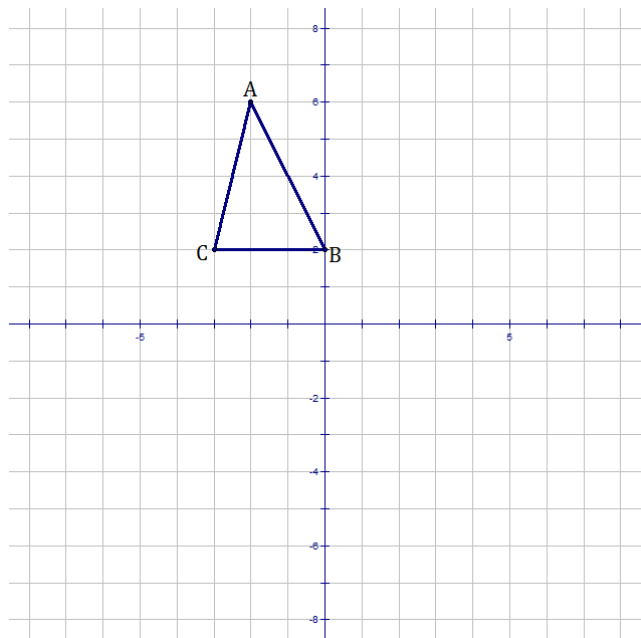
*Only an algebraic solution will be accepted.*

$$y = 3x + 2$$

$$2x + y = 7$$

**Solution** \_\_\_\_\_

8. Triangle ABC is shown on the grid below.



**Part A** Show the image of  $\Delta ABC$  after a rotation  $90^\circ$  counter-clockwise.

**Part B** Show the image of  $\Delta A'B'C'$  after a reflection over the  $y$ -axis