

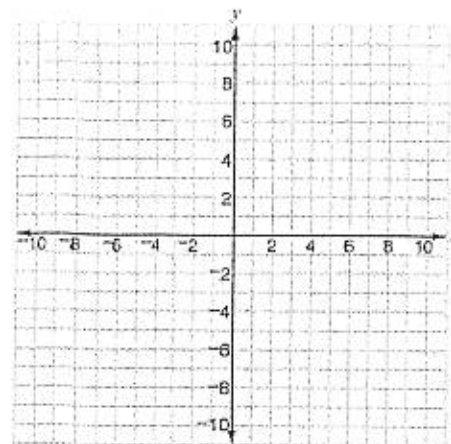
8th Grade Math Unit 3 Review

1. Solve the system of linear equations by graphing.

$$y = \frac{5}{3}x - 4$$

$$y = 2x - 6$$

Solution _____

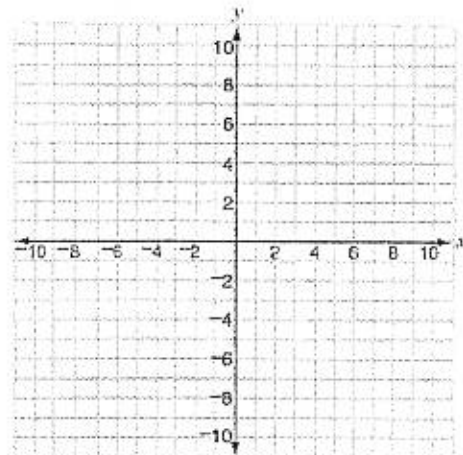


2. Solve the system of linear equations by graphing.

$$y = -x + 2$$

$$3x + 3y = 12$$

Solution _____

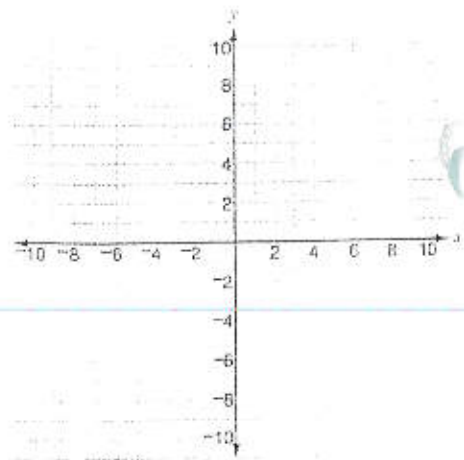


3. You are going into business mowing lawns. You purchased a lawn mower for \$200 plus it costs \$1.50 per lawn for gas and oil. You are charging \$15 per lawn. How many lawns must you mow to break-even?
- Write an equation to represent your costs (**expenses**).
 - Write an equation to represent the **income** you will make (revenue).
 - Using your equations, how many lawn will you have to mow to have your **income** equal your **expenses** (break-even point)?

4. Give an example of a system of equations with no solution and graph it.

$$y = \underline{\hspace{10em}}$$

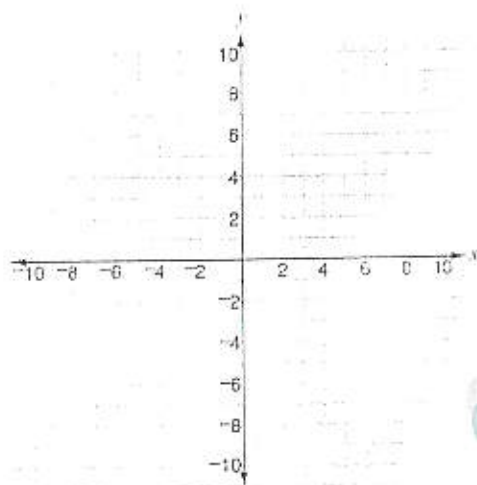
$$y = \underline{\hspace{10em}}$$



5. Give an example of a system of equations with infinitely many solutions and graph it.

$$y = \underline{\hspace{10em}}$$

$$y = \underline{\hspace{10em}}$$



6. Which point is a solution to the system of equations?

$$5x + y = 4$$

$$10x + 2y = 8$$

a. (4,5)

c. (10,2)

b. no solution

d. infinitely many solutions

Provide evidence to justify your answer using either the table, graph or the equation method.

7. Which point is a solution to the system of equations?

$$y = 2x - 6$$

$$x + y = 9$$

a. (4,5)

c. (5,4)

b. no solution

d. infinitely many solutions

Provide evidence to justify your answer using either the table, graph or the equation method.