Share 1 – 4 Possible Solutions

Solution methods may vary

1. Rearrange the first equation for *y*. Use the slope-intercept form to graph the first equation.

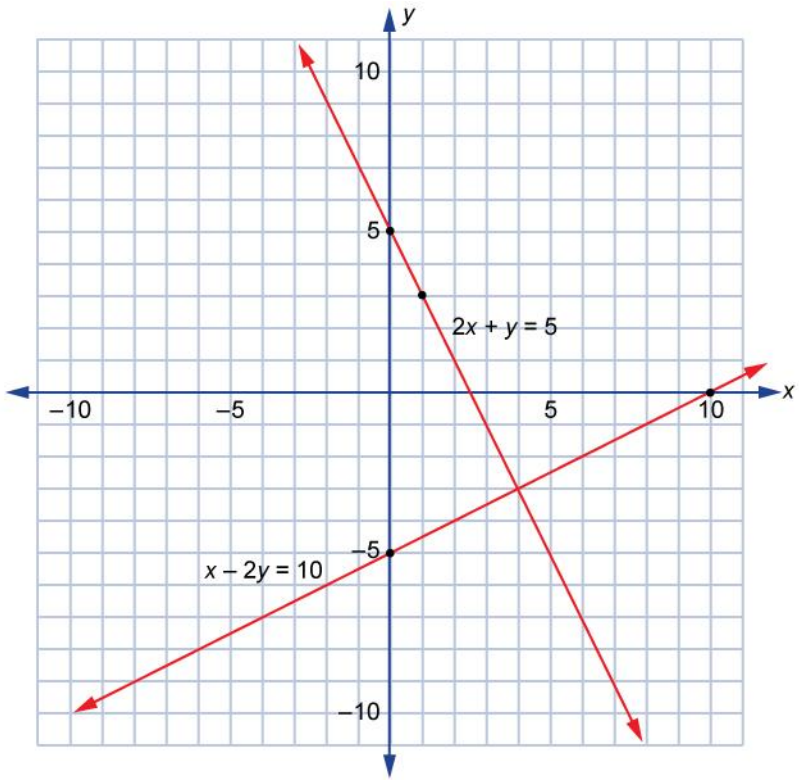
$$2x + y = 5$$
$$y = -2x + 5$$

Plot the point (0, 5) and then from that point use the slope of -2 (written as $\frac{-2}{1}$) to go down 2 and right one and find more points.

Use the intercepts method to find two points on the graph represented by the second equation.

$$x - 2y = 10$$
$$0 - 2y = 10$$
$$-2y = 10$$
$$\frac{-2y}{-2} = \frac{10}{-2}$$
$$y = -5$$

$$x - 2y = 10$$
$$x - 2\ 0\ = 10$$
$$x = 10$$



The point of intersection is at the point (4, −3).

2. The solution to a system of equations is the values of the unknown variables that satisfy all equations in the system.

3. The point of intersection represents the solution to a system because that is the point that lies on both lines and, therefore, satisfies the equation of each line.

4. Answers may vary. A table can be used to solve the system by comparing tables to identify the ordered pair that is common to both equations. Other ways could be to draw a diagram, use guess-and-test methods, or use algebraic methods.