

Name _____

Date _____

Solving Systems of Two Equations

Determine if the given points are solutions to each given system. (Substitute the values to make sure they satisfy both equations)

1) $y = 2x + 3$ (2, 3)
 $y = 3x + 1$

2) $y = -2x + 2$ (2, -2)
 $y = 3x - 8$

Determine if the following systems of equations have zero, one, or infinite solutions.

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

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

5) $y = 4x + 5$
 $3y = 12x + 15$

6) $y = \frac{2}{5}x - 2$
 $y = \frac{5}{2}x + 2$

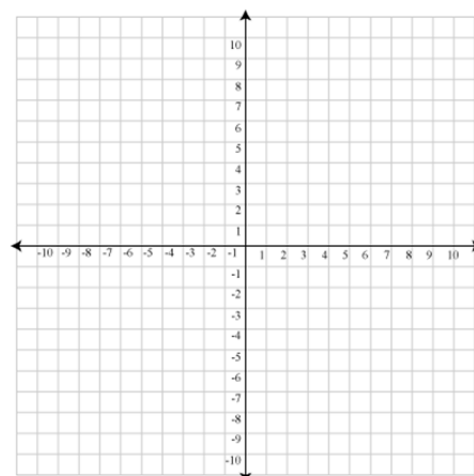
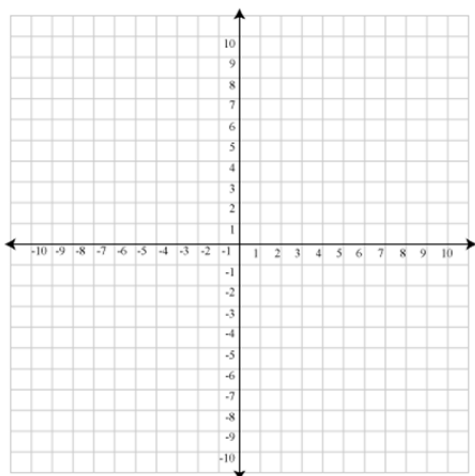
7) $y = -x + 5$
 $y = 2x + 5$

8) $2y = 4x + 6$
 $y = 2x - 3$

Solve the following systems by graphing. (Round your answers to the nearest integer)

9) $y = 2x + 3$
 $y = -4x - 3$

10) $y = -3x + 1$
 $y = \frac{4}{3}x - 3$



Solve each system of equations by substitution

$$\begin{aligned} 11) \quad y &= 2x + 1 \\ 2x + y &= 13 \end{aligned}$$

$$\begin{aligned} 12) \quad y &= x + 7 \\ y &= -2x - 2 \end{aligned}$$

$$\begin{aligned} 13) \quad y &= 3x - 4 \\ y &= -1x \end{aligned}$$

$$\begin{aligned} 14) \quad y &= 2x + 1 \\ 3x - y &= 1 \end{aligned}$$

Solve each system of equations by elimination

$$\begin{aligned} 15) \quad x + 2y &= 6 \\ -x + y &= -3 \end{aligned}$$

$$\begin{aligned} 16) \quad 2x + y &= 4 \\ x + 3y &= -3 \end{aligned}$$

$$\begin{aligned} 17) \quad x + 2y &= 1 \\ x - 3y &= -4 \end{aligned}$$

$$\begin{aligned} 17) \quad 3x + 2y &= -2 \\ x + 3y &= 4 \end{aligned}$$

Challenge on Back

Challenge 1:

Solve the following system of equations by elimination (Hint: you will need to multiply both equations by two different numbers).

$$2x + 3y = 11$$

$$3x + 2y = 9$$

Challenge 2:

Solve the following system of equations by any method.

$$y = 2x + 3$$

$$2x - y = 4$$

What do you think the result means?

Challenge 3:

Solve the following system of equations by any method.

$$y = 3x + 2$$

$$6x - 2y = -4$$

What do you think the result means?