

Solving Systems by Substitution

Date _____ Period _____

- 1) _____ is the _____ of a term of an equation by another know th have the same value.

Another way to think of it is if one equation is equal to y and another equation is equal to y , then the two equations must be equal to each other.

- 2) So, if $y = 2x + 1$ and $y = 5x + 4$
then, $2x + 1 = 5x + 4$, Now, solve for x !

- 3) Now that you have solved for x , plug it into one of the equations and solve for y !

- 4) Remember to write your answer as a coordinate point.

Solve each system by substitution.

5) $y = 5x + 18$
 $y = -8x - 21$

6) $y = -3x$
 $y = -8x + 10$

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

8) $y = -2x - 9$
 $y = 2x + 15$

$$\begin{aligned} 9) \quad & 2x - 2y = -4 \\ & y = 4x + 11 \end{aligned}$$

$$\begin{aligned} 10) \quad & -5x - 2y = -22 \\ & y = 4x - 2 \end{aligned}$$

$$\begin{aligned} 11) \quad & -2x + 2y = 6 \\ & y = -3x + 15 \end{aligned}$$

$$\begin{aligned} 12) \quad & y = -6x - 24 \\ & 2x + 5y = 20 \end{aligned}$$

$$\begin{aligned} 13) \quad & x - 2y = -5 \\ & -2x + 3y = 11 \end{aligned}$$

$$\begin{aligned} 14) \quad & 8x + 4y = -12 \\ & 6x + y = 1 \end{aligned}$$