

9.2

SOLVING SYSTEMS OF EQUATIONS USING THE SUBSTITUTION METHOD

Systems of equations

A system of equations is when you have two or more equations with the same variables.

$$2x - y = 8$$

$$x + y = 1$$

Solving systems of equations means: _____
_____.

In this case, the solution that will fit for this is _____

How do you do this?

Let's start simple. Solve:

$$\begin{array}{l} 1) \quad y = 2x \\ \quad x + 3y = 14 \end{array}$$

How do you do this?

Let's start simple. Solve:

$$\begin{array}{l} 2) \quad x = y - 3 \\ \quad 5x + 3y = 1 \end{array}$$

$$\begin{aligned} 3) \quad & x + y = 12 \\ & 2x + 5y = 27 \end{aligned}$$

$$\begin{aligned} 4) \quad & 2x + y = 9 \\ & x + 4y = 1 \end{aligned}$$

$$\begin{aligned} 5) \quad & c - d = 8 \\ & \frac{c}{5} = d + 4 \end{aligned}$$

$$\begin{aligned} 6) \quad & \frac{m}{3} + \frac{n}{3} = 2 \\ & 2m + 3n = 10 \end{aligned}$$

Infinite or No Solutions...

$$\begin{aligned} 7) \quad & 2x - 8y = 6 \\ & x - 4y = 8 \end{aligned}$$

Infinite or No Solutions...

$$\begin{aligned} 8) \quad & 2x - y = 1 \\ & 3y + 3 = 6x \end{aligned}$$

Practice

$$\begin{aligned} 9) \quad & 2x - y = 8 \\ & x + y = 1 \end{aligned}$$

Practice

$$\begin{aligned} 10) \quad & 5m + 3n = 7 \\ & m - 4n = 6 \end{aligned}$$