

Algebra / Solving a system of linear equations with substitution

Worked Examples:

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

$+2x$ $+2x$ $y = 2x + 2$

$3x + 2(2x + 2) = 11$
 $3x + 4x + 4 = 11$
 $7x + 4 = 11$
 $7x = 7$
 $x = 1$

Plug in

Solving a system of linear equations using substitution

Use substitution to solve the system.

$$\begin{aligned} x &= 3y - 15 \\ -5x + 2y &= 23 \end{aligned}$$

$x = \square$
 $y = \square$

Once you get one answer
 PLUG IT IN!

$$\begin{aligned} -5(3y - 15) + 2y &= 23 \\ -15y + 75 + 2y &= 23 \\ -13y + 75 &= 23 \\ -13y &= -52 \\ y &= 4 \end{aligned}$$

$x = 3(4) - 15$
 $x = 12 - 15$
 $x = -3$

$(-3, 4)$

Note: The Solve feature is not available to students.

#SystemsOfLinearEquations
 #SystemofEquationsAndMatrices

Tags Archive RSS feed Youtube QR Code email akennon@fscj.edu with any issues on this website

Made with Montaigne and bigmission 