6-2.notebook January 07, 2020

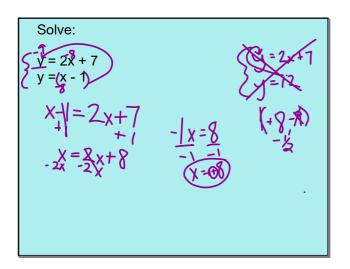
Section 6.2 Solving Systems Using Substitution

Goal: to solve for two unknowns in a system by substituting one variable expression into the other equation.

Graphing sometimes give approximate solutions to a system, so we will use substitution as one method for getting an exact solution.

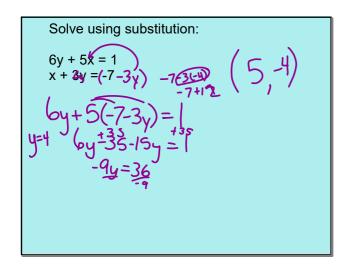
Using substitution, you will solve for one variable and substitute into the other equation.

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Solve using substitution: x - 2y - 1 = 0 + 2y + 1 y - 5x + 14 = 0 x = (2y + 1) y - 5(2y + 1) + 14 = 0y - 10y - 5 + 14 = 0

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Solve using substitution:

$$12y - 36 = -6x$$

$$2x + 48x = \frac{12}{2} - \frac{1}{4}y$$

$$12y - 36 = -6(6 - 2y)$$

$$12y - 36 = -36 + 12y$$

$$-12y + 36 + 36 - 12y$$

$$4 = 0$$
inf n any

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Remember the special situations, no solution and infinitely many solutions (identity).

if you get 0 = 0, it is identity

if you get 0 = 7 (for example), it is no solution

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A shopper bought 8 shirts and 5 pairs of pants for \$220. The next day, he purchased 5 shirts and 1 pair of pants for \$112. How much does each shirt and each pair of pants cost?

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Hwk: pg. 375 - 377 #12 - 20 (4th), 24 - 30 evens, 34, 40, 44, 45,

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