5.2 Solving Systems of Linear Equations by Substitution

Do Now: Determine the value of y. (Think about what you are doing!)

$y = -8x - 5 \text{ when } x = \dfrac{1}{2}$

What were your steps?

Example 1: Solving a system of linear equations by substitution.

(Think about the do now)

$y = -2x - 9$

$6x - 5y = -19$

Example 2: Solving system of linear equations by substitution.

$-x + y = 3$

$3x + y = -1$

Example 3: Modeling with Mathematics

A drama club earns $1040 from a production. A total of 64 adult tickets and 132 student tickets are sold. An adult ticket costs twice as much as a student ticket. Write a system of linear equations that represents this situation. What is the price of each type of ticket?

Classwork/Homework
9-16, 19, 21, 25, 26
(up for a challenge try #33)