Vocabulary Unit 3

Module 8: Solving Systems of Linear Equations

(8.1) **system of equations:** a set of equations that have the same variables.

Example: $2x + 3y = 6$ and $-2x + 4y = 8$

(8.1) **solution of a system of equations:** an ordered pair that is a solution to every equation.

Example: $2x + 3y = 6$ and $-2x + 4y = 8$, solution = (0,2)

(8.2) **substitution method:** to solve a system of linear equations by solving an equation for one of the variables and substituting the resulting expression for that variable into the other equation.

Example: $2x = 4y + 8$ and $x + y = 10$

$x + y = 10 \rightarrow y = -x + 10$

$2x = 4(-x + 10) + 8$

(8.3) **elimination method:** to solve a system of equations one variable is eliminated by adding or subtracting the two equations of the system to obtain a single equation in one variable.

Example: $2x + 3y = 6$

$\underline{-2x + 4y = 8}$

$7y = 14$