Unit 1 - Lesson 14

Three Equations, Three Unknowns

(Get ready to WRITE…a lot)



Learning Target:

I can solve a system of three equations and three unknowns algebraically.

1. Solve the following system of three equations in three unknowns:

$x+y-z=$ 4

$$x-2y+3z= -6$$

$$2x+3y+z=7$$

1. Solve for a, b and c:

 $5a+7b-3c=-18$

 $ -4a- b+8c=-4$

$ 6a+3b-2c= 0$

1. Solve the following system of equations:

$4x+3y=$ 4

$$2y-z=1$$

$$3x+2z=8 $$

1. The **University of Georgia** and **Florida State University** scored a total of 39 points during the 2003 Sugar Bowl. The points came from a total of 11 different scoring plays, which were a combination of touchdowns, extra-point kicks, and field goals, worth 6, 1, and 3 points respectively. The same number of touchdowns and field goals were scored. How many touchdowns, extra-point kicks, and field goals were scored during the game?

Write and solve a system of 3 equations in 3 unknowns. Be sure to define each variable.



***Homework 1 – 14***

1. $x+ y+z= 1$ 2) $-9p+2q-4r= 53$

$ 2x+3y-z=-15$ $7p-5q+3r=-47$

 $8x+y+3z= 23$ $-2p+6q-7r= 84$