A. Lesson Context

BIG PICTURE of this UNIT:	• What is meant by the term FUNCTIONS and how do we work with them? • mastery with working with basics & applications of linear functions • mastery with working with basics & applications of linear systems • understanding basics of function concepts and apply them to lines & linear systems		
CONTEXT of this LESSON:	Where we've been In Lessons 1-3, you practiced with various skills related to linear functions & in IM2 you have worked with Linear Systems	Where we are Review of skills related to using algebraic & graphic methods for solving systems	Where we are heading How do we apply the concept of "functions" to linear relations & linear systems.

B. Lesson Objectives

a. Write pairs of equations to model real world scenarios involving two unknowns.
b. Reviewing algebraic methods for solving simultaneous linear equations (elimination & substitution)

C. Opening Exercises (SKILL REVIEW):

A. Use the substitution method to solve for x & y in this system: L_1: $2x - 5y = 17$ and L_2: $x + 2y = 4$.

B. Use the elimination method to solve for x & y in this system: L_1: $-3x + 6y = 21$ and L_2: $2x + 5y = -11$.

C. Use any algebraic method to solve the following system: L_1: $2x + 3y = 7$ and L_2: $-2x - 1 = y$.

D. Use any algebraic method to solve the following system: L_1: $5x + 2y = 18$ and L_2: $2x + 3y = 16$.

E. Use any algebraic method to solve the following system: L_1: $3x + 21 = 5y$ and L_2: $4y + 6 = -9x$.

F. Use any algebraic method to solve the following system: L_1: $15 - 6y = 9x$ and L_2: $3x + 2y = 8$.

G. Linear Systems: Solutions Using Technology

Let's return to our Review Example A and Example B:

Use the substitution method to solve for x & y in this system: L_1: $2x - 5y = 17$ and L_2: $x + 2y = 4$.

(a) Mr S. wants to ALGEBRAICALLY test if the point (-4,5) is the intersection point. Verify whether or not this is true.

(b) Use your graphing calculator to GRAPHICALLY determine the intersection point of L_1 & L_2.

(c) Prepare a properly labelled & presented sketch, showing the solution to the system.

(d) Use your calculator's PLYSMLT2 APP to solve the system.

Use the elimination method to solve for x & y in this system: L_1: $-3x + 6y = 21$ and L_2: $2x + 5y = -11$.

(a) Mr S. wants to ALGEBRAICALLY test if the point (2,-3) is the intersection point. Verify whether or not this is true.

(b) Use your graphing calculator to GRAPHICALLY determine the intersection point of L_1 & L_2.

(c) Prepare a properly labelled & presented sketch, showing the solution to the system.

(d) Use your calculator's PLYSMLT2 APP to solve the system.