Daily Agenda

Learning Targets: I can use a system of equations to model. I can solve a system with augmented matrices.

Homework	Assessments
2.1 Day 2 Worksheet	2.1 to 2.2 Quiz - 9/22

Do one thing everyday that scares you.
-Eleanor Roosevelt

Nov 15-8:24 PM

Areas of Strength	Areas for Growth
• writing equations of lines	• precision
• function notation	• reading directions
• word problems	• working with fractions
• showing all work	• giving answers in a domain

If you scored below a 75%, do not panic. You need to come in to see me for help so that we can discuss your progress and a plan to get you to a level of mastery.

Sep 6-10:08 AM

Cops and Robbers

Robin Banks robs a bank and drives off. A short time later, he passes a truck stop at which police officer, Willie Katchup is dining. Willie receives a call from his dispatcher, and takes off in pursuit of Robin.

If t= # min since Robin passed truck stop
f(t)= # km Robin has gone past truck stop
g(t)=# km Willie has gone from truck stop

Robin's equation is f(t)=.75t

Willie's equation is g(t)=2(t-5)

Make a prediction... can Willie catch Robin? When?

Aug 31-10:40 PM

Given:

If t= # min since Robin passed truck stop
f(t)= # km Robin has gone past truck stop
g(t)=# km Willie has gone from truck stop

Robin's equation is f(t)=.75t

Willie's equation is g(t)=2(t-5)

When and where do they meet?

What is Robin's speed in km/hr? Willie's?

$$.75t = 2t - 10$$
$$\underline{-2t \quad -2t}$$
$$-1.25t = -10$$
$$t = 8 \text{ min}$$
$$\text{dist} = 6 \text{ km}$$

$$\text{Robin}: \frac{.75 \text{ Km}}{\text{min}} \cdot \frac{60 \text{ min}}{1 \text{ hr}} = 45 \text{ Km/hr}$$

$$\text{Willie}: \frac{2 \text{ Km}}{\text{min}} \cdot \frac{60 \text{ min}}{1 \text{ hr}} = 120 \text{ Km/hr}$$

Sep 11-10:00 AM

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matrix
-rectangular array of numbers

augmented matrix
-derived from a system of linear equations

$$ax + by = c$$
$$dx + ey = f$$
$$\begin{bmatrix} a & b & c \\ d & e & f \end{bmatrix}$$

To solve a system with an augmented matrix, we need to transform it into reduced row echelon form (RREF)

Sep 15-10:27 PM

To solve, we need to use RREF (Reduced Row Echelon Form)

$$\begin{bmatrix} 1 & 0 & \# \\ 0 & 1 & \# \end{bmatrix} \begin{matrix} x = \# \\ y = \# \end{matrix}$$

x y #

Steps
Enter Matrix Menu
Edit, Matrix A (2x3)
Enter Values
Quit
Enter Matrix Menu
MATH, RREF
Enter Matrix Menu
Choose Matrix Name
Enter

Sep 15-10:36 PM

Solve Using Augmented Matrices

$$10x - 3y = 46$$
$$x - 7y = 18$$

Sep 15-10:40 PM

Solve Using Augmented Matrices

$$4x - 3y = 17$$
$$2x - 9y = 38$$

Sep 15-10:40 PM