BE-1B TUESDAY 2-6-07

TAKE OUT HOMEWORK OR "REASON"

① On the same X-Y graph, graph these:

$$y = 2x + 3$$

$$y = 4x - 1$$

② Do these lines cross? If so, at what point?

Two linear equations form a system of linear equations, if they cross, the solution of the system is the (x, y) pair where they meet

$$\begin{cases} y = 2x + 3 \\ y = 4x - 1 \end{cases}$$

There are 2 ways to solve a system of LE. Both methods involve eliminating one variable first so you have an equation that is either all x's and numbers or all y's and numbers.

Elimination By Substitution

Elimination By Addition

Both methods ALWAYS work, usually the system hints as to which method to use.

Lets try both on $\begin{cases} y = 2x + 3 \\ y = 4x - 1 \end{cases}$

Ex) $\begin{cases} 2x + 3y = 1 \\ -3x + y = 15 \end{cases}$

Ex) $\begin{cases} x + y = 3 \\ 2x - 3y = 16 \end{cases}$

EBS ⇒ SOLVE FOR ONE OF THE four X or Y's, PICK THE EASIEST

EBA ⇒ Get the X, Y, NUMBERS LINED UP. Get EQUAL AND OPPOSITE COEFFICIENTS of X or Y by following GRE.

Homework:

Pg. 391 # 28, 32