1A-BE Tuesday 2-15-11

1. Find the percent change:
   a) From 25 to 20
   b) From 100 to 99
   c) From 50 to 70
2. Find EOL through (2, 1), (5, 6).
3. Write any EOL perpendicular to $y = -5x + 1$

If you have a linear equation, which means only x's, y's, numbers and + or − you can always combine all the x's terms, y's terms and numbers and SOLVE for y.

This gives you the most useful form of a linear equation, $y = mx + b$ called the slope-intercept form.

If, instead of solving for y, you put all the x and y terms on the left, and numbers on the right, it is called the STANDARD FORM OF A LINEAR EQUATION. $Ax + By = C$

ex) $2x + 3y = 1$

There are a couple of limits on the STANDARD FORM.

$$Ax + By = C$$

① The A term must be positive, if not, "change all signs" to make it positive

Ex) $-2x + 3y = -6$

$\boxed{2x - 3y = 6}$ STANDARD FORM

② $Ax + By = C$

The A, B, and C terms must NOT be fractions, multiply both sides by the bottom to get rid of a fraction.

Ex) $\frac{1}{2}x + 3y = 5$ multiply by 2

$\boxed{x + 6y = 10}$ STANDARD FORM

You can switch forms as you like,

Ex) $2x + 3y = 1$ SWITCH TO S-I

$$3y = -2x + 1$$

$$\boxed{y = -\frac{2}{3}x + \frac{1}{3}}$$

Ex) $y = 2x - 4$ SWITCH TO STANDARD

$$-2x + y = -4$$

$$\boxed{2x - y = 4}$$

- Read Ch. 4-5
- Pg 221 # 4-7, 16-18