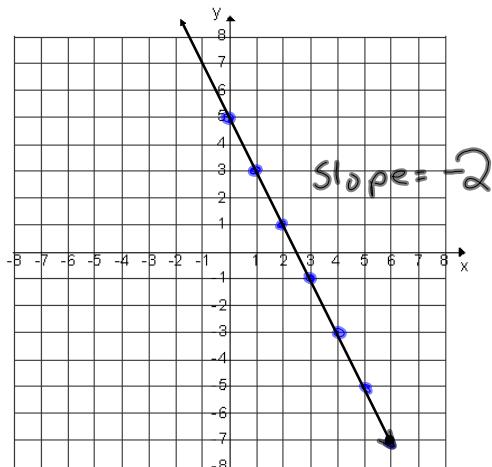11-11-13
1st Geo

Slope

Slope= -2

FIRE

Rise with the wise (y)
AND
Run to the exit (x)

(2,3) (4,13)

$$Slope = \frac{\Delta y}{\Delta x} = \frac{13-3}{4-2} = \frac{10}{2} = 5$$

(1,4) (5,12)

$$Slope = \frac{\Delta y}{\Delta x} = \frac{12-4}{5-1} = \frac{8}{4} = 2$$

(-1,6) (1,12)

$$Slope = \frac{\Delta y}{\Delta x} = \frac{12-6}{1+1} = \frac{6}{2} = 3$$

Formula we will use
for all problems to get
an equation of the line

$$y - \underline{y_1} = m(\underline{x - x_1})$$

given _____ given

Give the equation in slope-intercept
form (SIF) that goes through
(2,5) and has a slope of $\underline{6}$.

x_1, y_1

$$y - y_1 = m(x - x_1)$$
$$y - 5 = 6(x - 2)$$
$$y - 5 = 6x - 12$$
$$\underline{ + 5 \qquad + 5}$$
$$y = 6x - 7$$

Give the equation in SIF
that goes through (2,3)
and has a slope of ④.

x_1, y_1

$$y - y_1 = m(x - x_1)$$
$$y - 3 = 4(x - 2)$$
$$y - 3 = 4x - 8$$
$$\underline{ + 3 \qquad + 3}$$
$$y = 4x - 5$$

Give the equation in SIF
that goes through ($\underline{1}$,$\underline{8}$) and
has a slope of 2.

$$y - y_1 = m(x - x_1)$$
$$y - 8 = 2(x - 1)$$
$$y - 8 = 2x - 2$$
$$\underline{ + 8 \qquad + 8}$$
$$y = 2x + 6$$