$$\text{Slope} = \frac{\text{Rise}}{\text{Run}} = \frac{\text{Vertical Change}}{\text{Horizontal Change}} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

You should give slope as an integer or a fraction in reduced form.

$$\text{Rate of Change} = \frac{\triangle Y}{\triangle X}$$

Slope with units

You should give rate of change as an integer or a decimal with units

Bellwork Monday, February 24, 2014

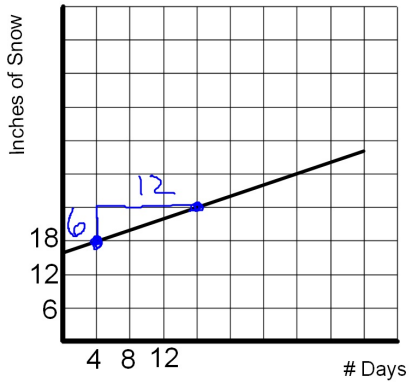
For 1 and 2 state the rate of change.

1.

Cows	Pounds of Hay Remaining
6	105
8	100
14	85
22	65
32	40

$\frac{\Delta y}{\Delta x} = \frac{105-100}{6-8} = \frac{5 \text{ lbs}}{-2 \text{ cows}}$ → 2.5 lbs/cow decreasing

2.



$\frac{6 \text{ in}}{12 \text{ days}} = .5 \text{ in/day}$ inc

Sec 6-4: Point-Slope Form

any pt on the line

$$y - y_1 = m(x - x_1)$$

m: Slope

If m is the slope of a line and (x_1, y_1) is a point on the line, then the equation of the line in Point-Slope Form is:

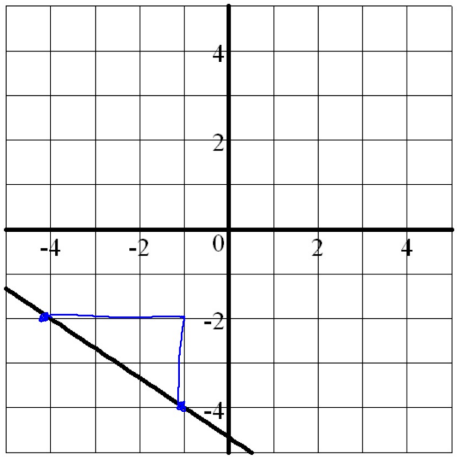
3. Write the equation of the line passing through the given two points in Point-Slope Form.

(9,7) and (6,19)

$m = \frac{19-7}{6-9} = \frac{12}{-3}$

$y - 19 = -4(x - 6)$

4. Write the equation of the line in Point-Slope Form.



$(-1,-4)$

$-\frac{2}{3}$

$y + 4 = -\frac{2}{3}(x + 1)$