Quiz On Wed. 2/22 over inequalities
(open note - your own notes only!)

(I'm gone Mon. & Tues.)

Quiz Review:

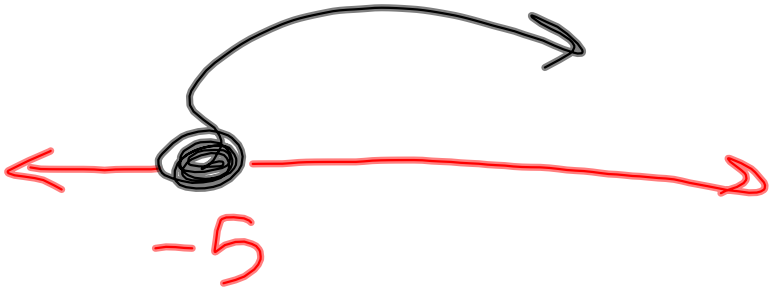
$2 > 1$

$1 < 2$

$\frac{-15}{3} \leq \frac{3d}{3}$

$-5 \leq d$

$d \geq -5$



Solving Complex Inequalities:

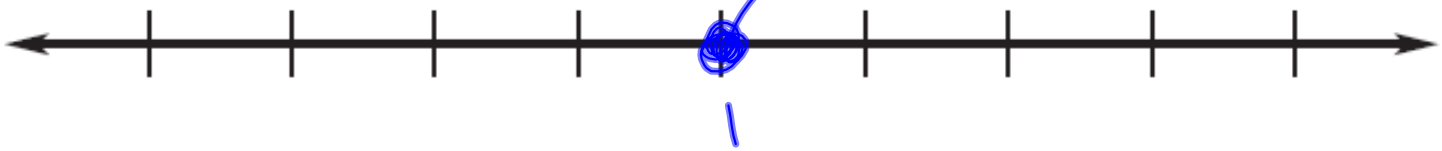
$2x + 4 \geq 6$

$-4 \quad -4$

$\frac{2x}{2} \geq \frac{2}{2}$

$x \geq 1$

Add or subtract numbers to isolate variable, then divide by coefficient*



* multiply or divide by a negative number: reverse the direction of the inequality...

Distribute first, then ... *

$$8y + 10 > 2(4y + 7) - 3$$

$8y + 10 > 8y + 14 - 3$

$8y + 10 > 8y + 11$

$-8y \qquad -8y$

$10 > 11$

no solution

$\frac{4(c-5)}{2} < \frac{2(c-10)}{2}$

$2(c-5) < c-10$

$2c-10 < c-10$

$-c \quad -c$

$c-10 < -10$

$+10 \quad +10$

$\boxed{c < 0}$

$6(x-8) > 6x-48$

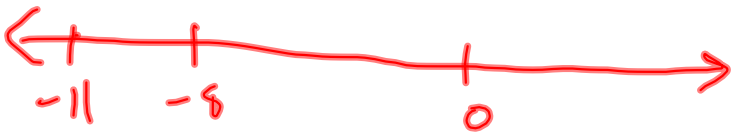
$2(3d-4) < 4+6d-15$

$6d-8 < 4+6d-15$

$-6d \quad -6d$

$-8 < -11$

no solution



$8m-7 < 4m+5$

30. Weaving A weaver spends $420 on supplies to make wall hangings and plans to sell the wall hangings for $80 each.

a. Write an inequality that gives the possible numbers w of wall hangings the weaver needs to sell in order for the profit to be positive.

b. What are the possible numbers of wall hangings the weaver needs to sell in order for the profit to be positive?

School Spirit Your club is in charge of making pins that students can buy to show their school spirit for the upcoming football game. You have made 225 pins so far, and you only have 2 hours left to make the rest of the pins. You need to make at least 400 pins.

a. Write an inequality that gives the possible numbers p of pins you have to make per minute in order to exceed your goal.

b. What are the possible numbers of pins you have to make per minute in order to exceed your goal?

Homework:
p. 372; 4 - 30 (even), 35, 37, 38