

BE-1A | MONDAY 4-2-07

- ① WHAT is 10% AS A decimal?
- ② WHAT is THE decimal you get in #1 ABOVE AS A fraction?
- ③ WHEN you MULTIPLY ANYTHING by the fraction in #2, how many places do you move the decimal?
- ④ Use the answer to #3 to find 10% of the following using mental math:
A) \$28
B) \$364.50
- ⑤ Could you use your ABILITY TO FIND 10% to find 5% or 20%? How?

①

WHAT is THE GRE?

How did you use it TO

SOLVE: $2x = 42$

or $5x + 6 = 2x - 12$

NAME EACH symbol:

$<$

$>$

$\leq$

$\geq$

WHAT is THE general NAME give
TO ALL of these: $<$, $>$, $\leq$, $\geq$?

IN [^]EQUALITIES

$\Downarrow$
NOT

$\Downarrow$
EQUALITIES

②

LET'S see if the GRE works
for INEQUALITIES.

It does, except when multiplying
or dividing by A NEGATIVE

GRI $\Rightarrow$ GOLDEN RULE of INEQUALITIES

"Whatever you do to one side
do to the other PLUS
whenever you multiply or
divide by a negative flip the
inequality sign."

$$\begin{array}{rcl} \text{Ex)} & t - 45 & \leq 13 \\ & + 45 & + 45 \end{array}$$

$$\boxed{t \leq 58}$$

$$\begin{array}{rcl} \text{Ex)} & 19 + r & \geq 16 \\ & - 19 & - 19 \end{array}$$

$$\boxed{r \geq -3}$$

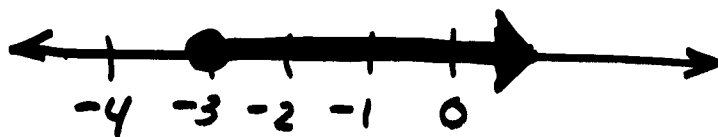
$$\begin{array}{rcl} \text{Ex)} & 5p + 7 & > 6p \\ & - 5p & - 5p \end{array}$$

$$7 > p$$

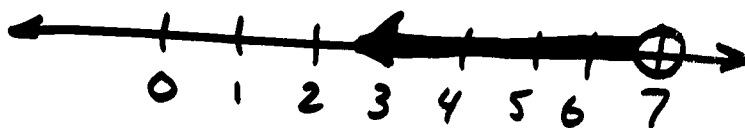
$$\boxed{p < 7}$$

Put variable on left,
flip sign!

Graph $r \geq -3$



$p < 7$



$$\text{Ex)} \quad \frac{14h}{14} > \frac{91}{14}$$

$$\boxed{h > \frac{91}{14}}$$

$$\text{Ex)} \quad \frac{b}{7} \geq 25$$

$$7 \cdot \frac{b}{7} \geq 25 \cdot 7$$

$$\boxed{b \geq 175}$$

$$\text{Ex)} \quad \frac{-2x}{-2} < \frac{14}{-2}$$

$$\boxed{x > -7}$$

Flip!
MUST CHANGE
< to >

$$\text{Ex)} \quad \frac{-x}{4} \geq 6$$

$$-4 \cdot \frac{-x}{4} \leq 6 \cdot -4$$

$$\boxed{x \leq -24}$$

$$\boxed{\{x \mid x \leq -24\}}$$

SET NOTATION

"ALL x 's such that x is less than or equal to -24 "

- Read Ch. 6-1 AND 6-2
- Pg 321 # 5 to 8
- Pg 329 # 6 to 9

(we'll look at how to do checks tomorrow)
