

24.) $C = \text{cost of one CD}$
 $48 + 3c = 7c$

$a = \text{Paula's age}$

Student	5 yrs ago	Now
Ang	$\frac{1}{2}a$	$\frac{1}{2}a + 5$
Paula	a	$a + 5$

a.)
$$\frac{1}{2}a + 5 = \frac{3}{5}(a + 5)$$

$$\frac{1}{2}a + 5 = \frac{3}{5}a + \frac{3}{5} \cdot 5$$

b.) solve

5-3 Inequalities

greater $>$ less $<$ greater
than

$$9 < 10 \quad 10 > 3$$

inequality - compares quantities that are not equal.

$<$ $>$ \leq \geq

$d = \text{price of DVD}$
 $d \geq \$15.00$

$d = \text{dog's weight}$
 $d < 50 \text{ lb}$

$$l \leq 35 \quad h \geq 40$$

$<$

- less than
- fewer than

 $>$

- greater than
- is more than
- exceeds

 \leq

- is less than $\textcircled{\text{or}}$ equal to

• is no more than

- is at most

 \geq

- is greater than $\textcircled{\text{or}}$ equal to

• is no less than

• is at least

$$h \geq 10$$

Determine truth of an inequality
Prove Proof

$$2t + 8 > 7 \quad ; \quad t = -1$$

$$2(-1) + 8 > 7 \quad \text{false}$$

$$\begin{array}{r} -2 + 8 > 7 \\ 6 > 7 \end{array}$$

$$p - 42 \leq -2 \quad ; \quad p = 40$$

$$40 - 42 \leq -2$$

$$\begin{array}{r} -2 \leq -2 \quad \text{less than } \textcircled{\text{or}} \text{ equal to} \\ \text{True} \end{array}$$

$$3 + x \leq 12$$

$$3 + 6 \leq 12$$

$$9 \leq 12$$

true

$$x = 6$$

$$y - 7 < 10, y = 17$$

$$17 - 7 < 10$$

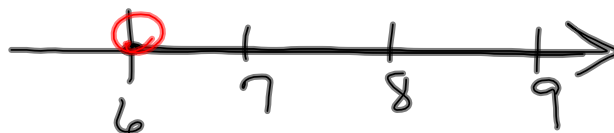
$$10 < 10$$

False

$$a > b$$

all of the
numbers greater
than b

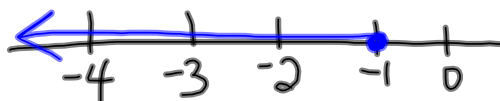
open circle



$$b \neq b$$

left is less

$$x \leq -1$$



$$x < 5$$



$$x \geq -2$$

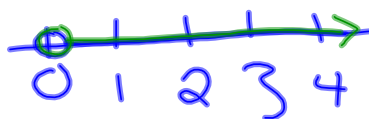


$$-3 \leq x$$

$$x \geq -3$$



$$x > 0$$



$$x < -2$$