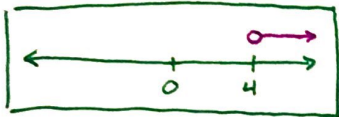


# 1.5 - 1.6 REVIEW KEY (ODD #'s)

#1  $-6t - 3 < -2t - 19$   
 $+2t + 3 \quad +2t + 3$

$$\frac{-4t < -16}{-4 \quad \downarrow \quad -4}$$

$$t > 4$$



#7  $2(k+4) - 3k \leq 14$

$$\frac{2k + 8 - 3k \leq 14}{-8 \quad -8}$$

$$\frac{-k \leq 6}{-1 \quad \downarrow \quad -1}$$

$$k \geq -6$$

#11  $-53 > -3(3z+3) + 3z$

$$\frac{-53 > -9z - 9 + 3z}{+9 \quad +9}$$

$$\frac{-44 > -6z}{-6 \quad -6}$$

$$\frac{44}{6} > z \text{ or } z < \frac{22}{3}$$

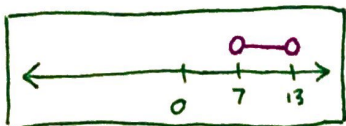
#3  $5 < k - 2 < 11$  and

$$\frac{5 < k - 2}{+2 \quad +2}$$

$$7 < k$$

$$\frac{k - 2 < 11}{+2 \quad +2}$$

$$k < 13$$

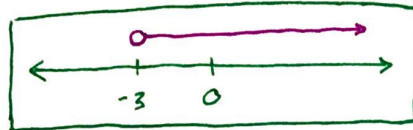


#3  $4(1-x) < 16$

$$\frac{4 - 4x < 16}{-4 \quad -4}$$

$$\frac{-4x < 12}{-4 \quad \downarrow \quad -4}$$

$$x > -3$$



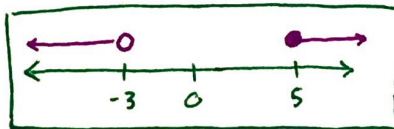
#9  $15(j-3) + 3j < 45$

$$\frac{15j - 45 + 3j < 45}{+45 \quad +45}$$

$$\frac{18j < 90}{18 \quad 18}$$

$$j < 5$$

#1  $x < -3 \text{ or } x \geq 5$



#5  $6b + 1 \leq 41 \text{ or } 2b + 1 \geq 11$   
 $+1 \quad +1 \quad -1 \quad -1$

$$\frac{6b \leq 42}{6 \quad 6}$$

$$b \leq 7$$

$$\frac{2b \geq 10}{2 \quad 2}$$

$$b \geq 5$$



any value satisfies the inequalities,  
b could be any real number or  
 $\infty$  solutions

#9

~~$-1 < x < 1$~~

$x < -1$  or  $x > 1$

#11

$-3 \leq x \leq 2$

after #3

$-3(2x-5) > -6x+9$

$-6x+15 > -6x+9$   
 $+6x$   $+6x$

$15 > 9$   
true

$\infty$  solutions

# Art & History Museum problem

Price w/o Discount Card

~~$15+15+10$~~

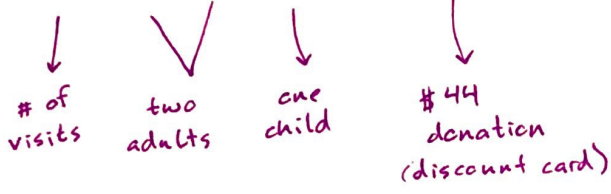
$v(15+15+10)$



Price w/ Discount Card

~~$12+12+8$~~

$v(12+12+8) + 44$



$40v > 32v + 44$   
 $-32v$   $-32v$

$\frac{8}{8}v > \frac{44}{8}$

$v > 5.5$

After the 5<sup>th</sup> visit, the discount card saves the family money. (6 or more visits)

# Telephone Company Problem

Plan 1

~~$30$~~   
 $30$

Plan 2

$18 + 0.06c$

$30 < 18 + .06c$   
 $-18$   $-18$

$12 < .06c$   
 $.06$   $.06$

$200 < c$

After 200 calls in a month, Plan 2 is better economically.

Plan A is cheaper up until you make over 200 calls in one month