

A#29

p. 394-395 #1-22, 33-36

Key

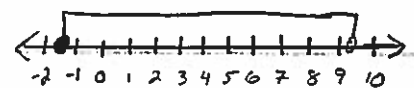
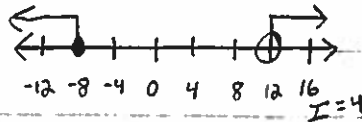
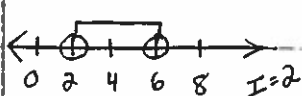
1. A compound inequality is an inequality that consists of two inequalities joined by and or or.

2.  $-6 \leq x \leq -4$  is a closed interval. ( $-6, -4$  and all the #s between)  
 $x \leq -6$  or  $x \geq -4$  is 2 sets of solutions. ( $-6$  and all #s to the left as well as  $-4$  and all #s to the right)

3.  $2 < x < 6$

4.  $x \leq -8$  or  $x > 12$

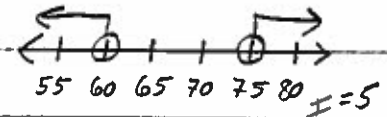
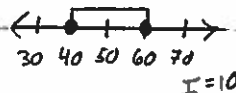
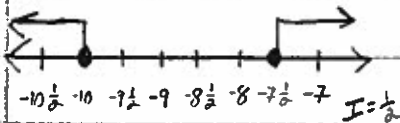
5.  $-1.5 \leq x < 9.2$



6.  $x \leq -10$  or  $x \geq -7\frac{1}{2}$

7.  $40 \leq s \leq 60$

8.  $t < 60$  or  $t > 75$



9.  $6 < x + 5 \leq 11$

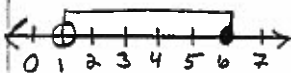
10.  $-7 > y - 8 \geq -12$

11.  $-1 \leq -4m \leq 16$

$1 < x \leq 6$

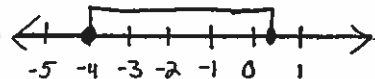
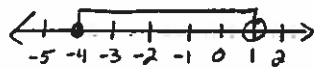
$1 > y \geq -4$

$\frac{1}{4} \geq m \geq -4$



$-4 \leq y < 1$

$-4 \leq m \leq \frac{1}{4}$



12.  $-6 < 3n + 9 < 21$

13.  $-15 \leq 5(3p - 2) < 20$

14.  $7 > \frac{2}{3}(6q + 18) \geq -9$

$-15 < 3n < 12$

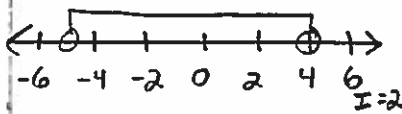
$-3 \leq 3p - 2 < 4$

$7 > 4q + 12 \geq -9$

$-5 < n < 4$

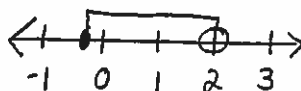
$-1 \leq 3p < 6$

$-5 > 4q \geq -21$

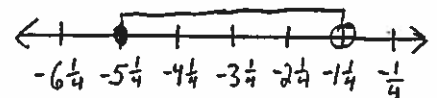


$-\frac{1}{3} \leq p < 2$

$-\frac{5}{4} > q \geq -\frac{21}{4}$



$-5\frac{1}{4} \leq q < -1\frac{1}{4}$



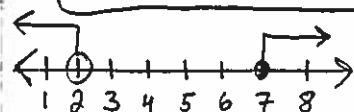
15.  $2r + 3 < 7$  or  $-r + 9 \leq 2$

$2r < 4$  or  $-r \leq -7$

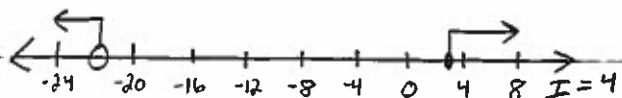
16.  $16 < -5 - 6$  or  $2s + 5 \geq 11$

$r < 2$  or  $r \geq 7$

$s + 16 < -6$  or  $2s \geq 6$



$s < -22$  or  $s \geq 3$



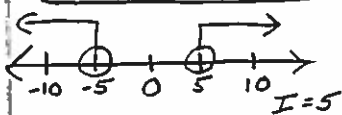
A#29 continued

Key

p. 384-385 #17-22, 33-36

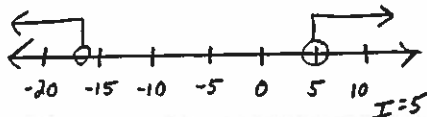
17.  $V+13 < 8$  or  $-8V < -40$     18.  $-14 > W+3$  or  $5W-13 > W+7$

$V < -5$  or  $V > 5$



$-17 > W$  or  $4W > 20$

$W < -17$  or  $W > 5$

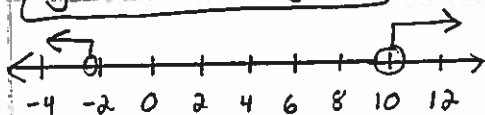


19.  $9g-6 > 12g+1$  or  $4 > -\frac{2}{5}g+8$

$-7 > 3g$  or  $-4 > -\frac{2}{5}g$

$-\frac{7}{3} > g$  or  $10 < g$

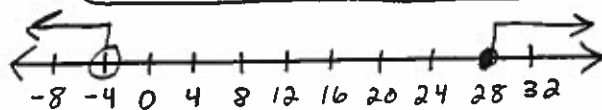
$g < -2\frac{1}{3}$  or  $g > 10$



20.  $-2h-7 > h+5$  or  $\frac{1}{4}(h+8) \geq 9$

$-3h > 12$  or  $h+8 \geq 36$

$h < -4$  or  $h \geq 28$



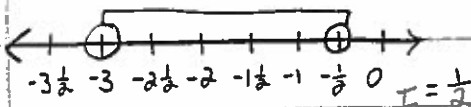
21. Error: (-3) was not added to 4.    22. Error: The solutions are not between

$4 < -2x+3 < 9$

$1 < -2x < 6$

$-\frac{1}{2} > x > -3$

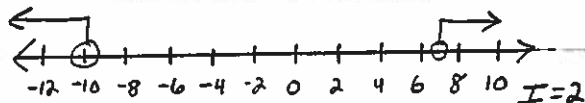
$-3 < x < -\frac{1}{2}$



-10 and 7, they are

less than -10 and more than 7.

$x < -10$  or  $x > 7$



33.  $-18 < x-23$  and  $x-16 < -22$

$5 < x$  and  $x < -6$

$x > 5$  and  $x < -6$

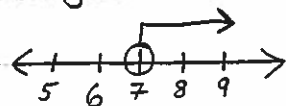
No Real Solution

34.  $-3y+7 \leq 11$  and  $y+4 > 11$

$-3y \leq 4$  and  $y > 7$

$y \geq -\frac{4}{3}$  and  $y > 7$

$y > 7$

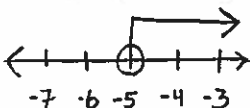


35.  $2m-1 \geq 5$  or  $5m > -25$

$2m \geq 6$  or  $m > -5$

$m \geq 3$  or  $m > -5$

$m > -5$



36.  $n+19 \geq 10$  or  $-5n+3 > 33$

$n \geq -9$  or  $-5n > 30$

$n \geq -9$  or  $n < -6$

$n = \{ \text{All Real \#s} \}$

