

Pg 204 12-22 even 35, 36, 37, 38  
40, 42

12)  $5 \leq y+2 \leq 11$

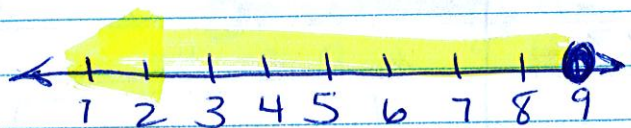
$5 \leq y+2$  and  $y+2 \leq 11$

$5-2 \leq y+2-2$        $y+2-2 \leq 11-2$

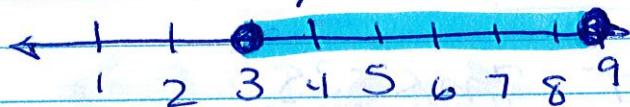
$3 \leq y$

$y \leq 9$

$y \geq 3$



Ans.  $3 \leq y \leq 9$



14.  $15 < \frac{20+11+K}{3} \leq 19$

$3(15) < \frac{3(20+11+K)}{3} \leq 19 \cdot 3$

$45 < 20+11+K \leq 57$

$45 < 31+K \leq 57$

$45-31 < 31-31+K \leq 57-31$

$14 < K \leq 26$



$$16. -3 \leq \frac{6-q}{9} \leq 3$$

$$9 \cdot (-3) \leq 9 \frac{6-q}{9} \leq 3 \cdot 9$$

$$-27 \leq 6-q \leq 27$$

$$-27-6 \leq 6-6-q \leq 27-6$$

$$\frac{-33}{-1} \leq \frac{-q}{-1} \leq \frac{21}{-1}$$

$$33 \geq q \geq 21$$

$$21 \leq q \leq 33$$



$$18. 5+m > 4 \text{ or } 7m < -35$$

$$5+m > 4$$

$$7m < -35$$

$$5-5+m > 4-5$$

$$\frac{7m}{7} < \frac{-35}{7}$$

$$m > -1 \text{ or } m < -5$$



$$20. 7-c < 1 \text{ or } 4c \leq 12$$

$$7-7-c < 1-7 \text{ or } \frac{4c}{4} \leq \frac{12}{4}$$

$$\frac{-c}{-1} < \frac{-6}{-1}$$

$$c \leq 3$$

$$c > 6$$



$$22. 5z - 3 > 7 \text{ or } 4z - 6 < -10$$

$$5z - 3 + 3 > 7 + 3$$

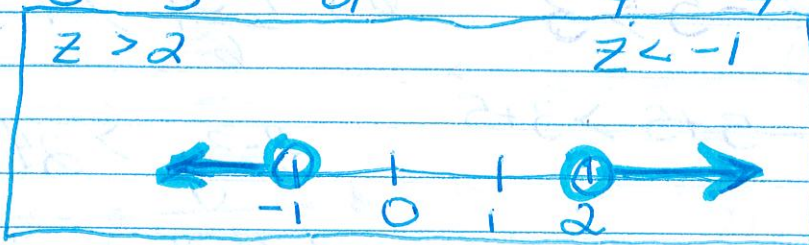
$$4z - 6 + 6 < -10 + 6$$

$$\frac{5z}{5} > \frac{10}{5}$$

$$\frac{4z}{4} < \frac{-4}{4}$$

$$z > 2 \text{ or}$$

$$z < -1$$



35.



$$-3 < x < 4$$

36



$$x < -2 \text{ or } x \geq 1$$

37.



$$3 \leq x < 6$$

$$38. 4r - 3 > 11 \text{ or } 4r - 3 \leq -11$$

$$4r - 3 + 3 > 11 + 3$$

$$4r - 3 + 3 \leq -11 + 3$$

$$\frac{4r}{4} > \frac{14}{4}$$

$$4r \leq -8$$

$$r > \frac{14}{4}$$

$$r \leq -2$$

$$r > \frac{7}{2} \text{ or } r < -2$$



$$40 \quad \frac{4y+2}{5} - 5 > 3 \text{ or } \frac{4-3y}{6} > 4$$

$$\frac{4y+2}{5} - 5 > 3 \quad 6 \cdot \frac{4-3y}{6} > 4 \cdot 6$$

$$\frac{4y+2}{5} - 5 + 5 > 3 + 5 \quad 4 - 3y > 24$$

$$\frac{5}{1} \cdot \frac{4y+2}{5} > 8 \cdot 5$$

$$4 - 4 - 3y > 24 - 4$$

$$-3y > 20$$

$$\frac{-3y}{-3} > \frac{20}{-3}$$

$$y < -6\frac{2}{3}$$

$$4y + 2 > 40$$

$$4y + 2 - 2 > 40 - 2$$

$$\frac{4y}{4} > \frac{38}{4}$$

$$y > 9\frac{1}{2}$$

or

$$y < -6\frac{2}{3}$$

