

$$35) \quad 2(4-x) > 8$$

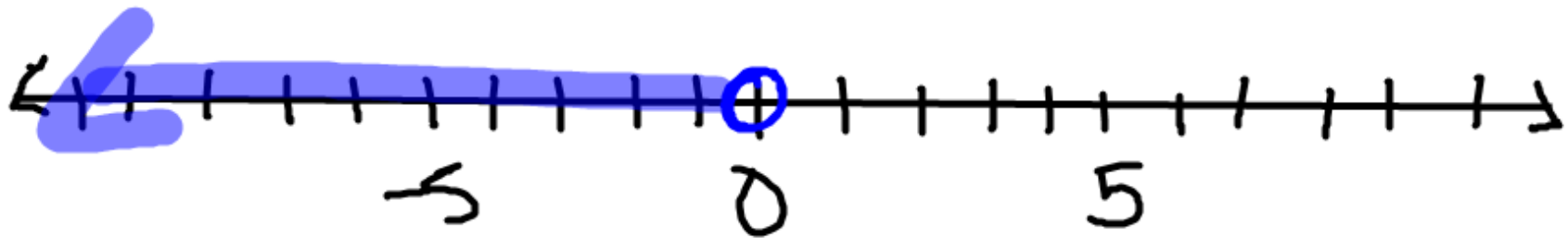
$$\begin{array}{r} 8 - 2x > 8 \\ -8 \quad \quad -8 \end{array}$$

---

$$\begin{array}{r} -2x > 0 \\ \hline -2 \quad \quad -2 \end{array}$$

$$x < 0$$

$$-2 < 0$$



$$29) \quad \frac{3}{2}x - 7 < 2$$
$$\quad \quad \quad +7 \quad \quad +7$$

---

$$\frac{3}{2}x < 9$$
$$\frac{3/2}{3/2} \quad \frac{9}{3/2}$$

$$x < 6$$

$$7 < 6 \quad F$$

$$4 < 6 \quad T$$



# Compound Inequalities

"And" Inequality

"Or" Inequality

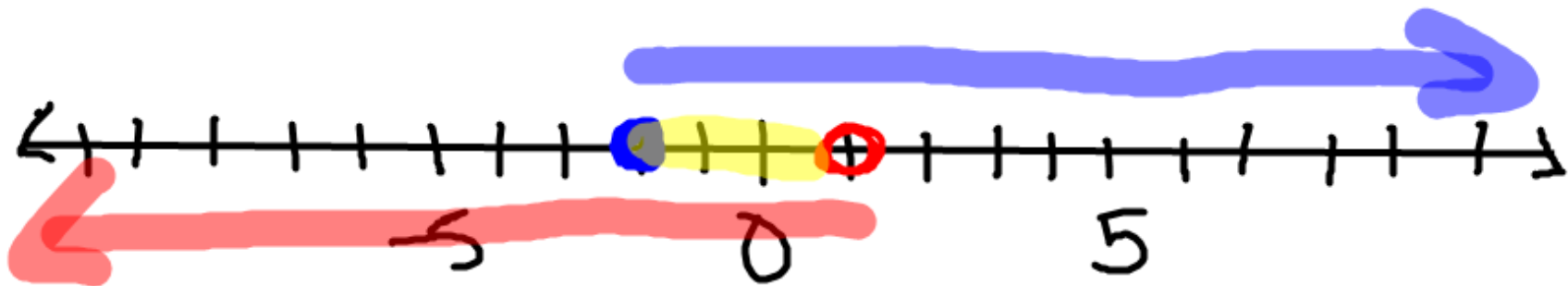
$$-2 \leq x < 1$$

$$-2 \leq x$$

$$x < 1$$

$$-2 \leq 4$$

$$4 < 1$$



$$-2 \leq 3x - 8 \leq 10$$

$$\begin{array}{r} -2 \leq 3x - 8 \\ +8 \qquad +8 \\ \hline \end{array}$$

$$\frac{6}{3} \leq \frac{3x}{3}$$

$$2 \leq x$$

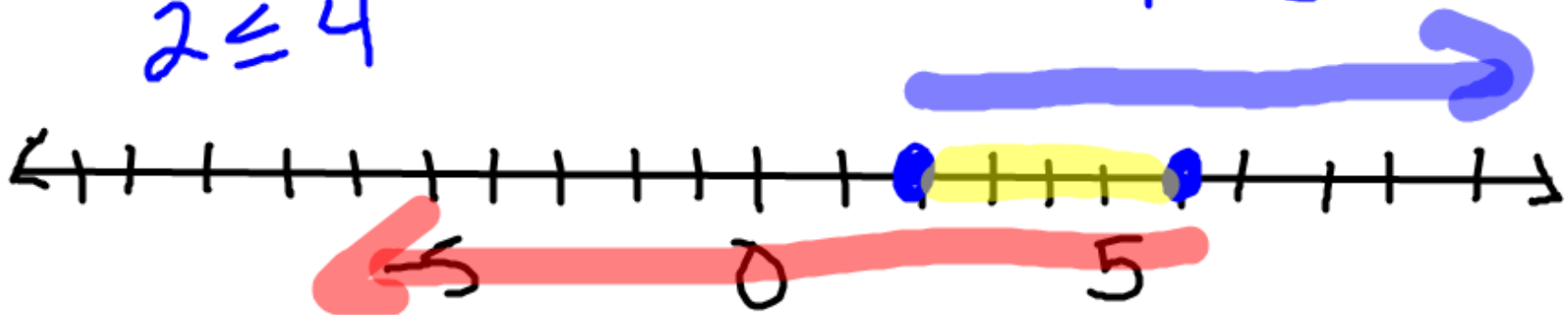
$$2 \leq 4$$

$$\begin{array}{r} 3x - 8 \leq 10 \\ +8 \qquad +8 \\ \hline \end{array}$$

$$\frac{3x}{3} \leq \frac{18}{3}$$

$$x \leq 6$$

$$4 \leq 6$$



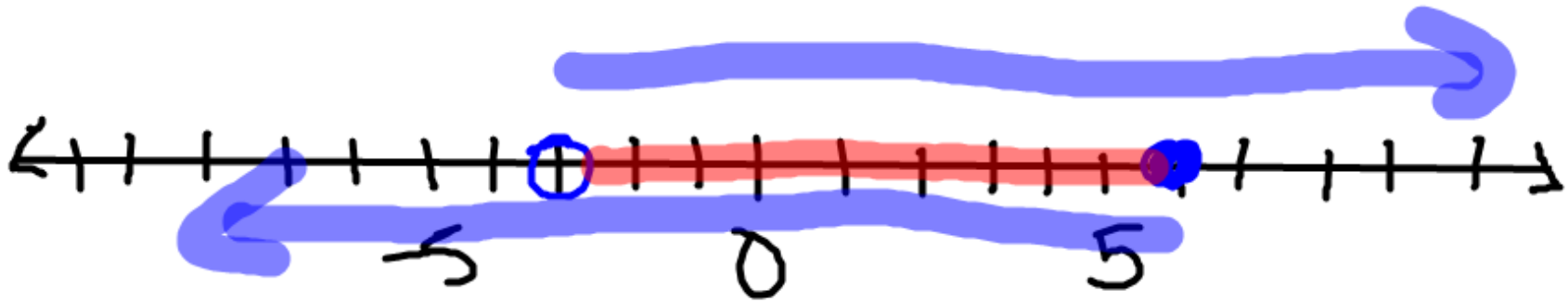
$$-12 < 3x - 3 \leq 15$$

$$-12 < 3x - 3$$

$$3x - 3 \leq 15$$

$$-3 < x$$

$$x \leq 6$$





# Assignment Pg. 45-46

## # 13-18 and #37-42

**MATCHING INEQUALITIES** Match the inequality with its graph.

13.  $x \geq 4$

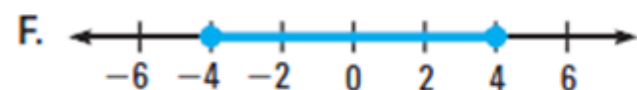
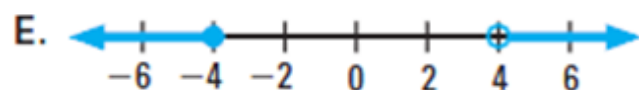
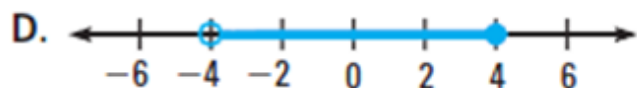
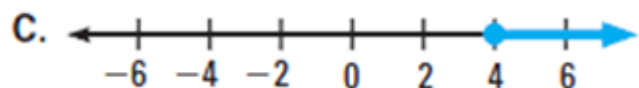
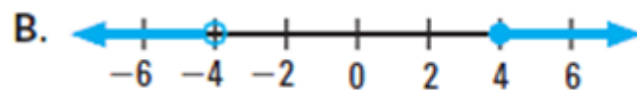
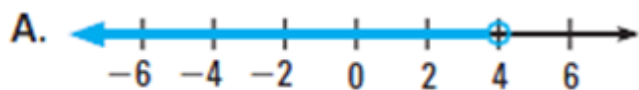
14.  $x < 4$

15.  $-4 < x \leq 4$

16.  $x \geq 4$  or  $x < -4$

17.  $-4 \leq x \leq 4$

18.  $x > 4$  or  $x \leq -4$



**COMPOUND INEQUALITIES** Solve the inequality. Then graph your solution.

37.  $-2 \leq x - 7 \leq 11$

38.  $-16 \leq 3x - 4 \leq 2$

39.  $-5 \leq -n - 6 \leq 0$

40.  $-2 < -2n + 1 \leq 7$

41.  $-7 < 6x - 1 < 5$

42.  $-8 < \frac{2}{3}x - 4 < 10$