

p. 339-340: 20, 24, 26-31 (w), 33-41 (w),
49, 50

$$9 + 9 + x + x > 26$$

$$(20) \quad x > -18$$

$$(24) \quad -3 > x$$

$$(26) \quad x \leq -5$$

$$(27) \quad x \geq -3$$

$$(28) \quad -9 < x$$

$$(29) \quad c$$

$$(30) \quad B$$

$$(31) \quad k$$

$$(33) \quad x < 12$$

$$(35) \quad 0 \leq x$$

$$(37) \quad x \leq -1$$

$$(39) \quad x > \frac{1}{2}$$

$$(41) \quad x > -\frac{14}{3}$$

$$(49) \quad 2k + 18 > 26; x > 4m$$

$$(50) \quad 4x \leq 25; x \leq 6\frac{1}{4}m$$

b.4 Solving Compound Inequalities Involving "And" Dec. 14, 2006
Intersection

$$\{\underline{2}, \underline{4}, 6, 8\} \text{ "and" } \{1, \underline{2}, 3, \underline{4}, 5\}$$
$$= \{2, 4\}$$

what is
in common

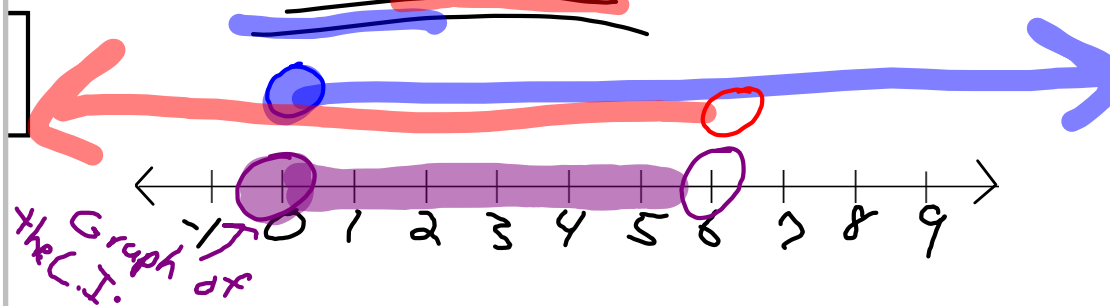
Write a Compound Inequality that represents \mathbb{R} greater than or equal to zero "and" less than 6.

Get the
Variables
touching
'and'

$$x \geq 0 \text{ and } x < 6$$

$$0 \leq x \text{ and } x < 6$$

$$0 \leq x < 6$$



ex2) Graph $-2 < y < 0$



What does this Mean?

\mathbb{R} greater than -2 and less than 0.

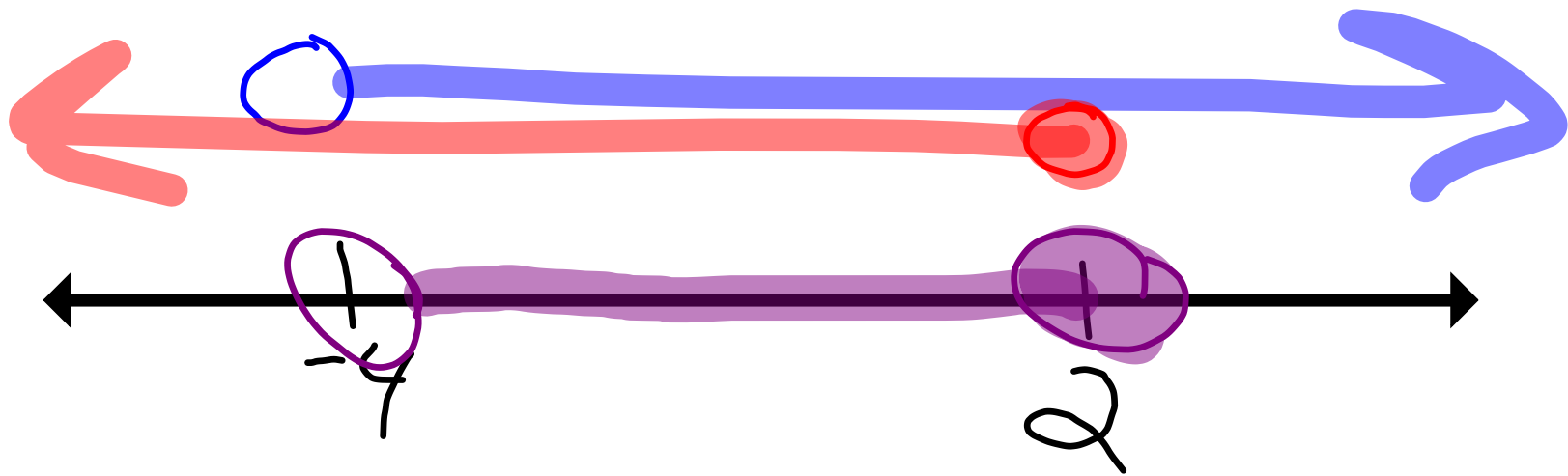
Solving:

* Get 'x' by Itself

$$\begin{array}{r} \underline{\underline{-2 < x+2 \leq 4}} \\ -2 \qquad -2 \qquad -2 \end{array}$$

$$\begin{array}{r} \underline{\underline{-2 < x+2}} \text{ and } \underline{\underline{x+2 \leq 4}} \\ -2 \qquad -2 \qquad \downarrow \qquad -2 \qquad -2 \\ \underline{\underline{-4 < x}} \text{ and } \underline{\underline{x \leq 2}} \end{array}$$

$$\underline{\underline{-4 < x \leq 2}}$$



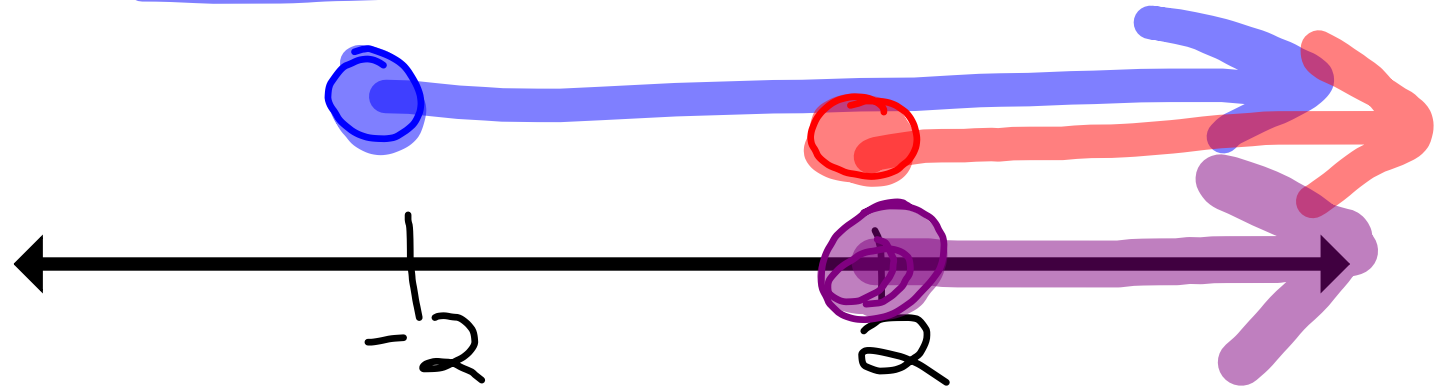
ex4)

$$-3 \leq 2x + 1 \leq 5$$

$$\begin{array}{r} -1 \\ -1 \\ -1 \end{array}$$

$$-4 \leq 2x \leq 4$$

$$-2 \leq x \leq 2$$

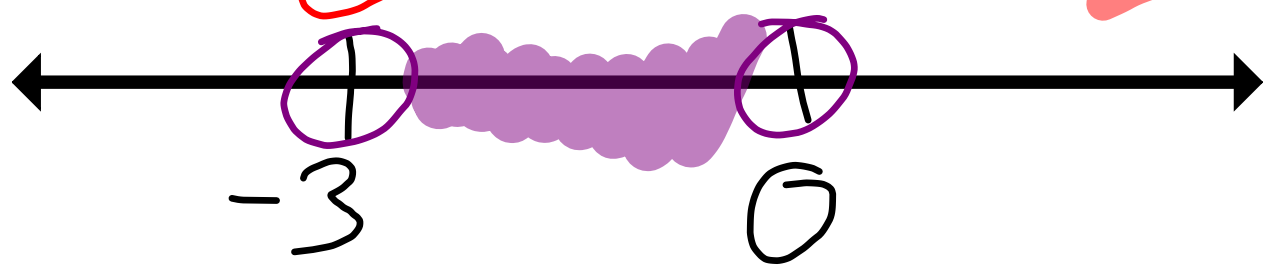


ex5)

$$\begin{array}{r} -2 < -2 - x < 1 \\ +2 \quad +2 \quad +2 \\ \hline \end{array}$$

$$\begin{array}{r} 0 < -x < 3 \\ - \quad - \quad - \\ \hline \end{array}$$

$$0 > x > -3$$



O.T.L.

① Pg 345-346:

14-17 (a);

29-37 (o);

40-46 (e);

28