

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

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

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

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

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

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

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

$$(29) \quad c$$

$$(30) \quad B$$

$$(31) \quad k$$

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

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

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

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

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

$$(49)$$

$$2k + 18 > 26; x > 4m$$

$$(50)$$

$$4x \leq 25; x \leq 6\frac{1}{4}m$$

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

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

what is in common

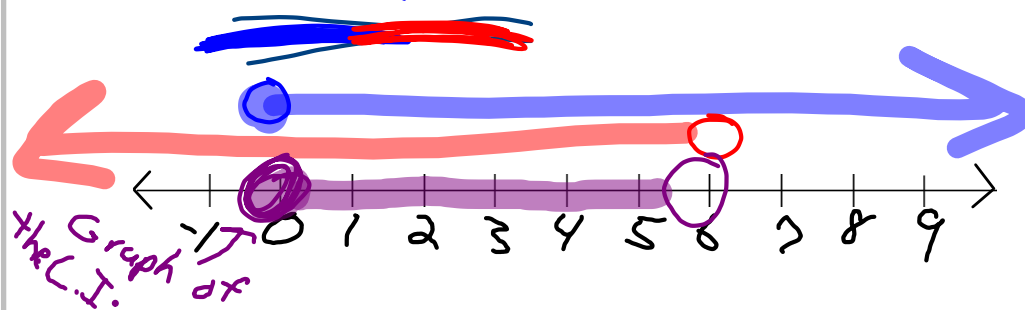
Write a Compound Inequality that represents x greater than or equal to zero "and" less than 6.

Get the variables touching 'and'

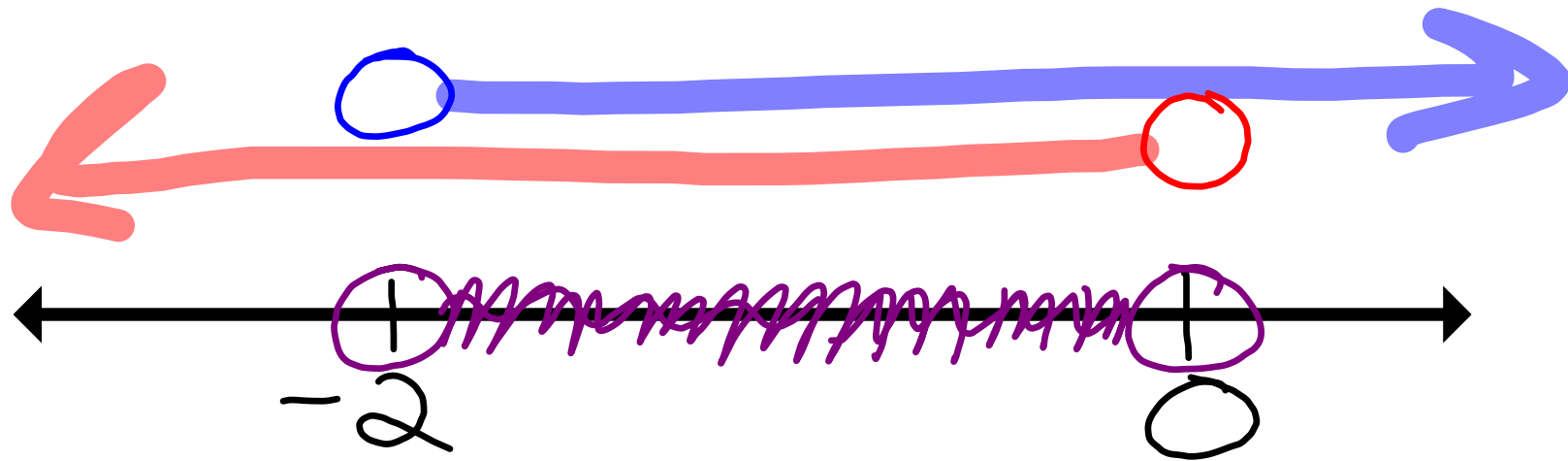
$$x \geq 0 \text{ and } x < 6$$

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

$$0 \leq x < 6$$



ex2) Graph $-2 < y < 0$



What does this Mean?

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

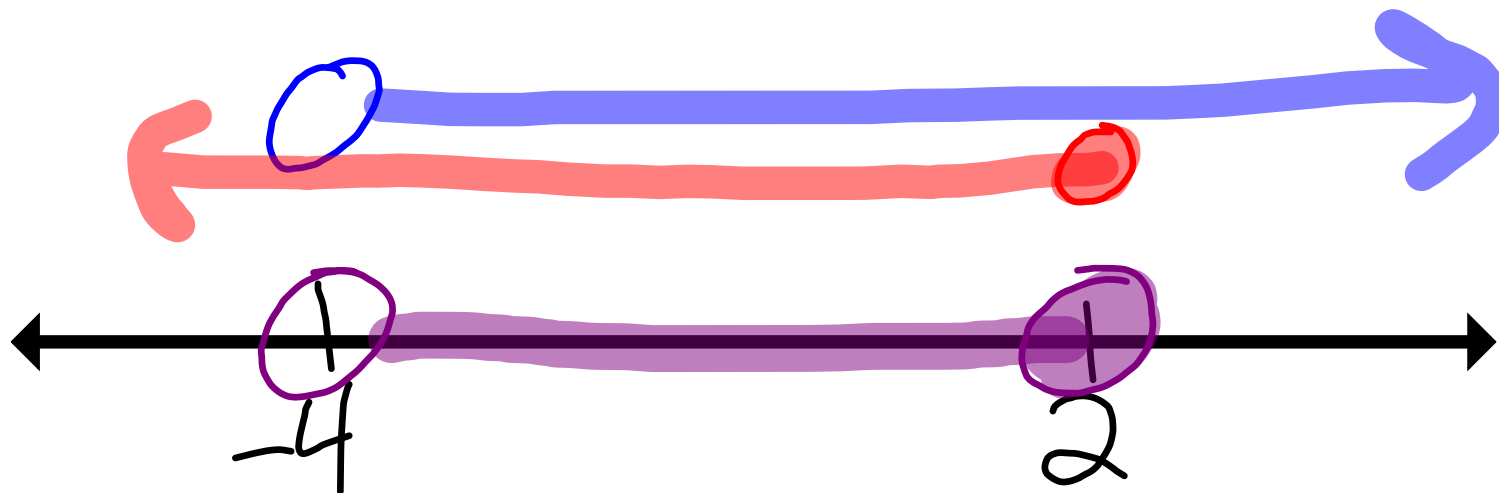
Solving:

* Get 'x' by Itself

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

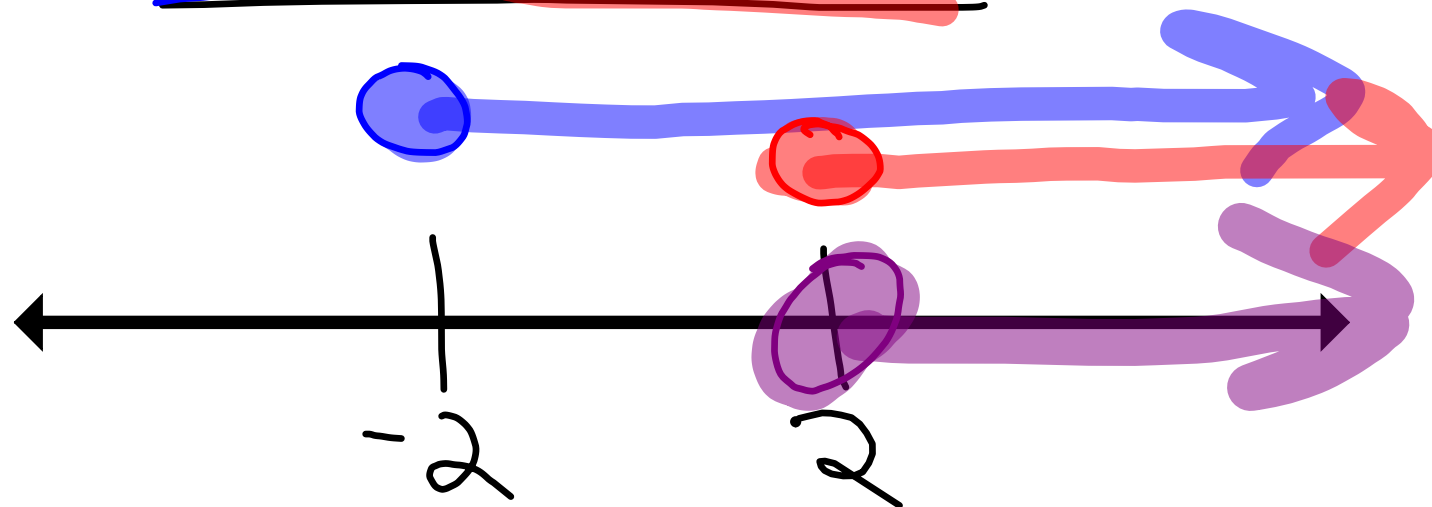
$$\begin{array}{c} \underline{-2} < x+2 \text{ and } x+2 \leq \underline{4} \\ -2 \qquad -2 \qquad \downarrow \qquad -2 \qquad -2 \\ \underline{-4} < x \text{ and } x \leq \underline{2} \end{array}$$

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



ex4) $-3 \leq 2x + 1 \leq 5$

$$\begin{array}{r} -1 \\ \hline -4 \leq 2x \leq 4 \\ \hline -2 \leq x \leq 2 \end{array}$$



ex5) $-2 < -2 - x < 1$

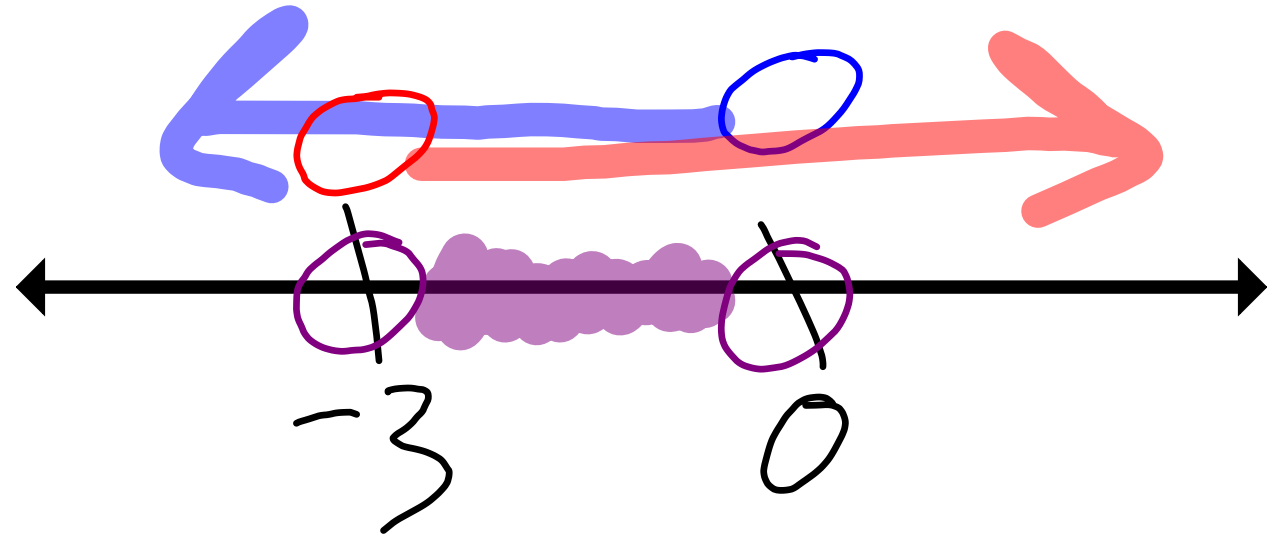
$+2 \quad +2 \quad +2$



$0 < -x < 3$

$0 > x > -3$

We must switch the signs since we are $\cdot (-1)$



O.T.L.

① Pg 345-346:

14-17 (a);

29-37 (o);

40-46 (e);

28