

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

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

20  $x > -18$

30 B

49  $2x + 18 > 26; x > 4m$

24  $-3 > x$

31 A

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

26  $x \leq -5$

33  $x < 12$

27  $x \geq -3$

35  $0 \leq x$

28  $-9 < x$

37  $x \leq -1$

29 C

39  $x > \frac{1}{2}$

41  $x > -\frac{14}{3}$

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

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

What is  
in common

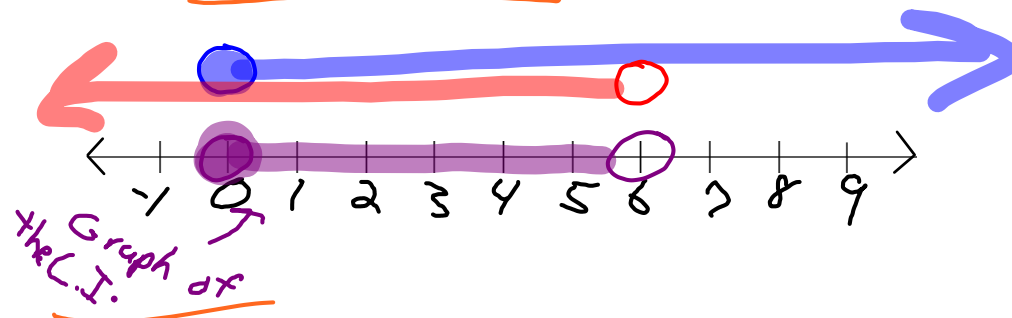
Write a Compound Inequality that represents  $x$  greater than or equal to zero "and" less than 6.

Get the  
Variables  
touching  
'and'

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

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

$$\underline{0 \leq x < 6}$$



ex2) Graph  $-2 < y < 0$



**What does this Mean?**

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

Solving:

\* Get 'x' by Itself

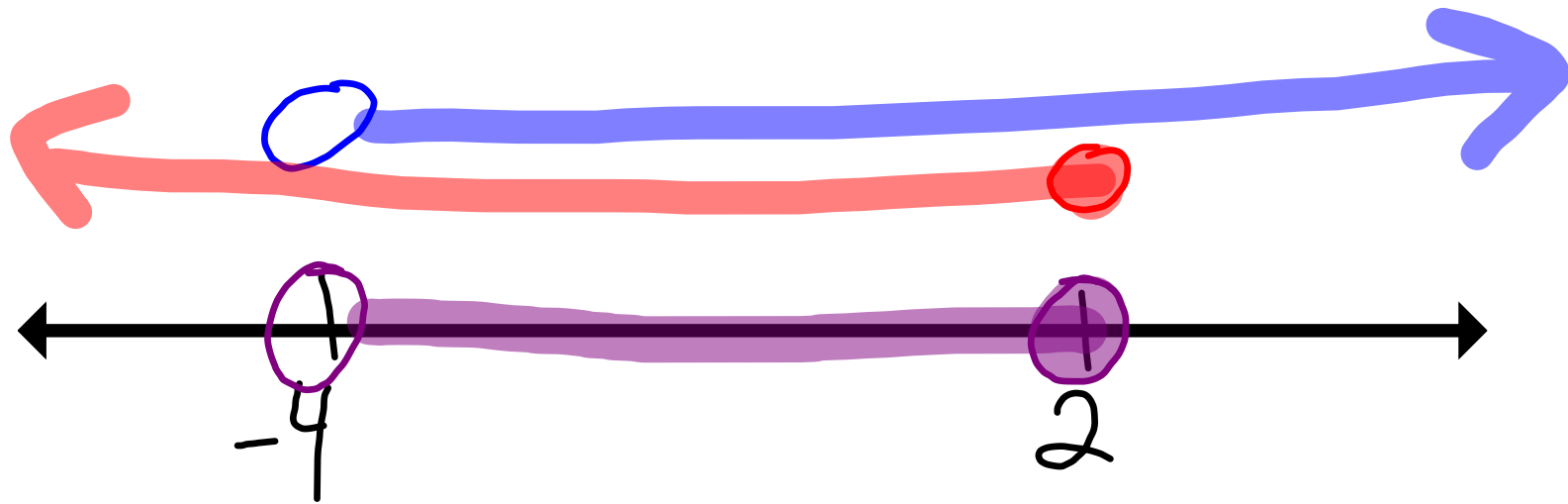
$$\underline{-2 < x+2 \leq 4}$$

$$\underline{-2 \quad -2 \quad -2}$$

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

$$\underline{-2 < x+2} \text{ and } \underline{x+2 \leq 4}$$

$$\underline{-2 \quad -2} \quad \downarrow \quad \underline{-2 \quad -2}$$
$$\underline{-4 < x} \text{ and } \underline{x \leq 2}$$

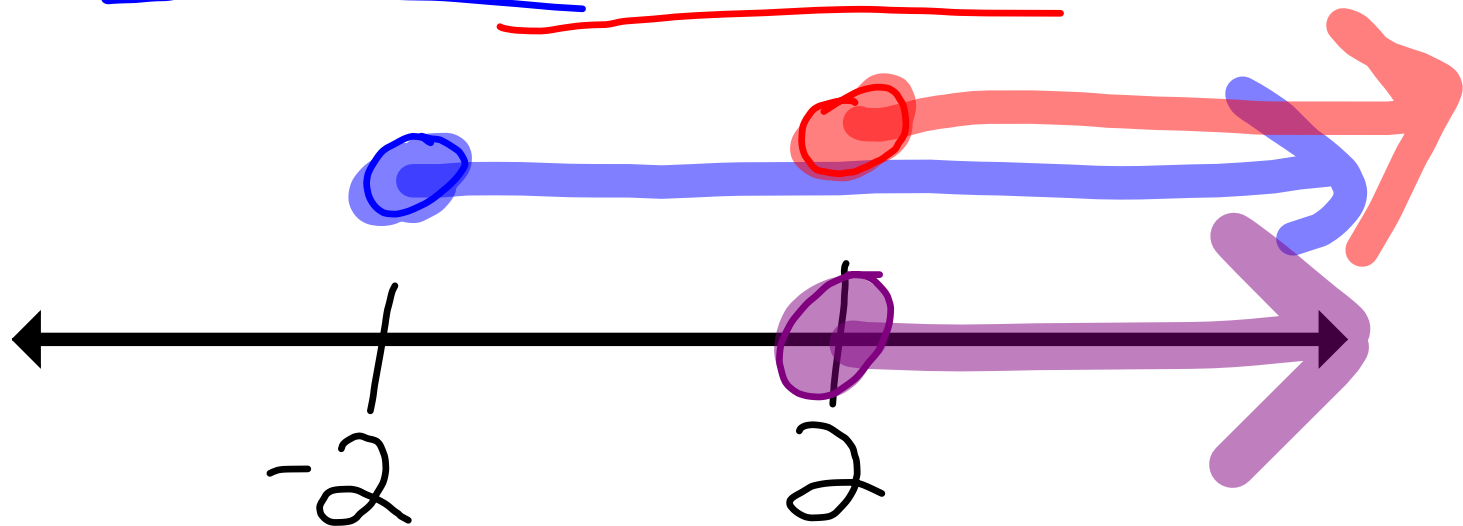


ex4)

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

$$\frac{-4}{2} \leq \frac{2x}{2} \geq \frac{4}{2}$$

$$\underline{-2} \leq x \geq \underline{2}$$



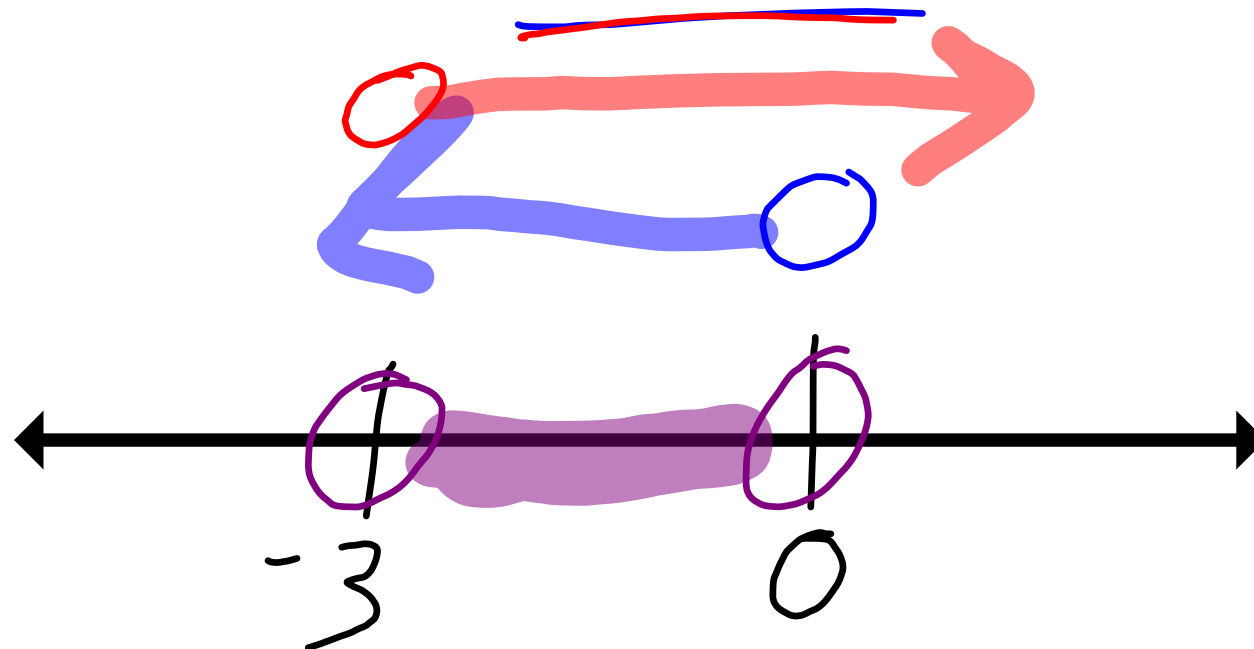
ex5)

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

$$\frac{0}{-1} < \frac{-x}{-1} < \frac{3}{-1}$$

$$\underline{0} > x > \underline{-3}$$

we need to switch & do that 1st since we ÷ by -1



O.T.L.

① Pg 345-346:

14-17 (a);

29-37 (o);

40-46 (e);

28