♡

2/14/12

Warm up:

Solve and graph on a # line

1. $-60 \leq 12s$

2. $18 < -2c$

* remember the # line represents what the variable can be so put it on the left B-4 graphing. OR think about what x can be.

6.3 a few more word problems:

Area rectangle: $A = b \cdot h$

triangle: $A_{tri} = \frac{1}{2} b \cdot h$

need this for H.W.

6.4 Statements w/ [and] and [OR]

[Compound INEQUALITIES.]

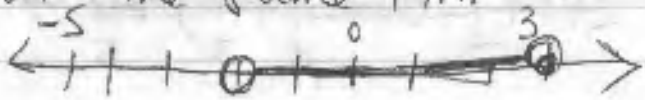
AND

- X can be like a sandwich so you solve on both sides

examples: $-2 < x < 3$

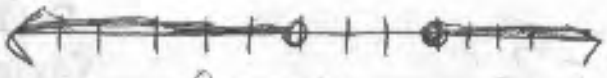
This gives the "boundary" of where x can be. It has to be less than 3 and greater than -2. at the same time.

1) make points at the boundaries
2) Fill in the middle.



OR This will be separated into two but put on the same graph.

$X < 2$ or $X \geq 5$



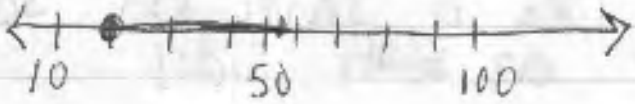
These two situations can't happen at the same time so we say "OR"

Example in real life:

At an auction, the lowest bid for an autographed trading card is $20. The highest bid is $54. Write and graph a compound inequality that describes the possible bids

ANS: All bids b are greater than or equal to $20 and less than or equal to $54,

$20 \leq b \leq 54$

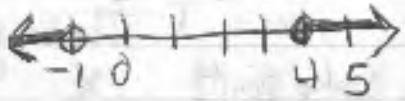


NOW YOU DO IT!

try to graph

1. $X < -1$ or $X \geq 4$
2. $-3 \leq X < 5$

1. $X < -1$ or $X \geq 4$



2.

$-3 \leq X < 5$

6.4 cont.

Solving w/ compound inequalities.

$-1 < x + 1 \leq 7$

$-1 \quad -1 \quad -1$

$-2 < x \leq 6$

1. Isolate x like before
2. when you do something to one side do it to the other.
3) To graph ask can both situations happen at same time? yes? AND no? OR.

You know you are done when x is by itself in the middle.

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solve + graph

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

$+3 \quad +3 \quad +3$

$-2 \leq -x \leq 5$

$\frac{}{-1} \quad \frac{}{-1} \quad \frac{}{-1}$

$2 \geq x \geq -5$

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solve + graph OR Statement

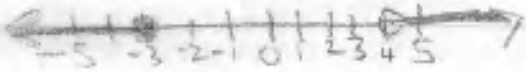
1) solve separately 2) graph on the same # line

$3x - 2 \leq -11$ $\qquad$ $2x + 8 > 16$

$+2 \quad +2$ $\qquad$ $-8 \quad -8$

$\frac{3x}{3} \leq \frac{-9}{3}$ $\qquad$ $\frac{2x}{2} > \frac{8}{2}$

$x \leq -3$ $\qquad$ $x > 4$



Now You do it:

$1 < -2x + 3 < 19$

$-3 \quad -3 \quad -3$

$\frac{-2}{-2} < \frac{-2x}{-2} < \frac{16}{-2}$

$1 > x > -8$ now flip $-8 < x < 1$

Homework:

pg. 372 30, 32, 34, 35, 37

pg. 384 - 385 1-31 odd