

Nov. 17th

3-6

Absolute Value Equations

- DO NOT follow what is in the textbook

|| Absolute Value Bars

↖ the distance away from zero

$$|x| = 4$$

$$x = -4 \text{ and } 4 \quad \pm 4$$

$$|x - 0| = 4$$

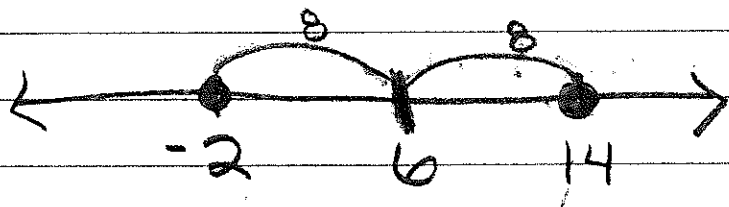
The distance between x
and zero is 4 units



$$x = -4 \text{ and } 4 \quad (\pm 4)$$

$$|x - 6| = 8$$

The distance between x and 6 is 8 units!



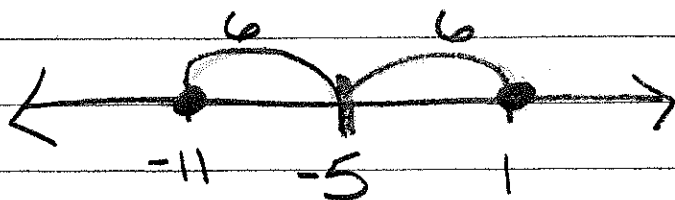
$$x = -2 \text{ and } 14$$

$$|x + 5| = 6$$

* plus sign inside absolute value has to be changed to $-(-)$ *

$$|x - (-5)| = 6$$

The distance between x and -5 is 6 units.



$$x = -11 \text{ and } 1$$

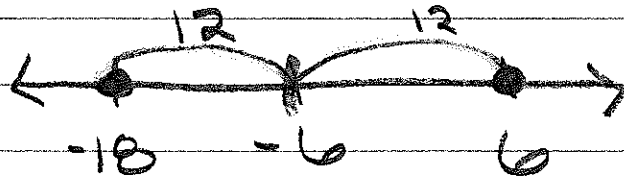
$$|p+6| - 2 = 10$$

~~+2 +2~~

$$|p+6| = 12$$

$$|p - \underline{-6}| = \underline{12}$$

The distance between
p and -6 is 12 units



$$p = -18 \text{ and } 6$$

* ALWAYS get the absolute value by itself on one side of the equation before writing your sentence.

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#1, 3, 9, 11, 13, 15, 18 + 19

- write sentence
- graph
- solution