Name: _____ Period: _____ Date: _____

Absolute Value Functions and Graphs Guided Notes

1. What is meant by absolute value?

'Absolute value' means to remove any negative sign in front of a number, and

to think of all numbers as positives (or zero)

2. How is absolute value represented?

We put "| |" marks either side called bars e.g $|-5| = 5$ and $|7| = 7$

3. What is the shape of the graph of absolute value function?

Absolute value function has a V-shaped graph.

4. What does $|x|$ means?

It will give the value of x as $|x| = \begin{cases} x, & x \geq 0 \\ -x, & x < 0 \end{cases}$

5. How to sketch the graph of y=f(x)

Step I: sketch the graph for y=f(x)

Step II: Reflect in the x-axis that part of the graph below the x-axis.

PROBLEM 01

Solve the equation

$|x + 1| = 2x$

$once|\ \ |\ sigs\ are\ removed \pm is\ added$

$x + 1 = \pm(2x - 5)$

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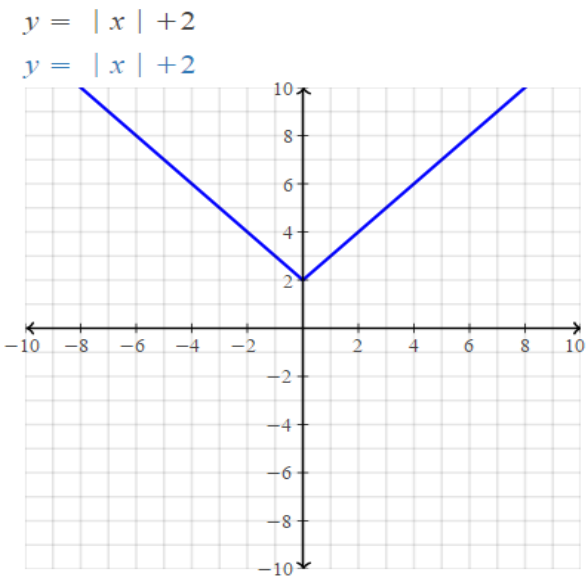
PROBLEM 02

Sketch the graph using following equation

$$|x| + 2$$



PROBLEM 03

If f(x)=$|x-2|$find f(-5)

Now to find the value of f(-5), we need to put the value of x as -5.

$$f(-5) = |-5-2|$$

$$= |-7|$$

$$= 7$$