**PMATH 12 – CHAPTER 2 – ABSOLUTE VALUE AND RECIPROCAL FUNCTIONS**

**2.1 Absolute Value Functions**

The **absolute** **value** of any number is its distance from the origin on a number line.

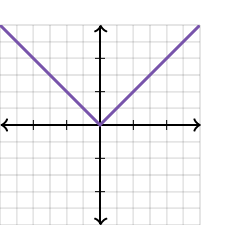
In general,

**Ex 1** Evaluate

1. b)

Absolute Value Function y = (f(x) can be ANY function)

eg. y =

graph of the basic abs. val. y = 

Once again **x-intercepts are CRITICAL POINTS** since the graph changes directions.

**Ex 2** Sketch the graph y =

Process

1. if y = 3x + 6, the x-int = -2
2. create a table with points on either side of -2
3. plot the points and connect

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | x | y = 3x + 6 | y = | | -2 |  |  | | -3 |  |  | | -4 |  |  | | -1 |  |  | | 0 |  |  | |  |

Domain

Range

**Homework – p86 #3-7 and multiple choice**