**Unit 1: “Rational Numbers”** **Vocabulary List**

**Natural Numbers:**

“The Counting Numbers”

1, 2, 3, 4, ……

Does NOT include “zero”

**Whole Numbers:**

“Counting Numbers including zero”

0, 1, 2, 3, 4…….

**Integers:**

“Positive and negative whole numbers”

… -3, -2, -1, 0, 1, 2, 3….

(This list goes on and on forever in both directions)

Not Included: Fractions (that cannot be reduced to whole numbers) and Decimals

**Rational Numbers:**

Numbers that can be written as a fraction (think of the root “ratio”)

For example: 5 is rational because you can write it as $\frac{5}{1}$

0.75 is rational because you can write it as $\frac{3}{4}$

Pi is not rational because you cannot write it as a fraction

Rational Numbers include: natural numbers, whole numbers, integers, fractions, terminating decimals, and repeating decimals (also numbers like $\sqrt{25}$ is rational because it is equivalent to 5, which can be written as a fraction)

**Irrational Numbers:**

“Numbers that cannot be written as a fraction”

**This includes:**

π (because it is a number that never ends and doesn’t repeat)

Square Roots of non-perfect squares ( $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$, $\sqrt{6}$, $\sqrt{7}$, $\sqrt{8}$, $\sqrt{10}$, ….)

Non-repeating non-terminating decimals (ex. 0.10110111…. or 0.4623153….)

**Additive Inverse:**

“The opposite of a number”

Examples:

The additive inverse of 12 is -12

The additive inverse of -6 is 6

The sum of a number and its additive inverse is zero.

(12 + -12 = 0)

**Number Line:**

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**Absolute Value:**

“The distance from that number to zero on a number line”

Examples:

$\left|3\right|$ = 3 (Because 3 is “3 spaces from zero on a number line)

$\left|-6\right|$ = 6 (Because -6 is “6 spaces from zero on a number line)

**Distributive Property:**

A math rule that helps you deal with parentheses

a ( b + c) = ab + ac

(note: if there is no symbol between variables, the operation is multiplication)

Examples:

 5 (6 + 10) = 5\*6 + 5\*10

3(x + 5) = 3x + 3\*5 in other words: 3(x + 5) = 3x + 15