

1.5 – ADDING AND SUBTRACTING INTEGERS:

$$|4| = 4 \quad | -4 | = 4$$

***** The absolute value is the distance a # is from zero on a number line. IT IS ALWAYS A POSITIVE #. *****

INTEGERS:

An integer is any positive or negative whole #.

A number line has #s to the right of zero, zero, and #s to the left of zero. They are all integers.

-5 -4 -3 -2 -1 0 1 2 3 4 5

#s to the right increase (get larger). $4 < 5$.

#s to the left of zero are negative numbers. THE LARGER THE NEGATIVE #, THE LESS ITS VALUE.

$$-5 < -4$$

ADDING INTEGERS:

Adding a negative # to another # is the same as subtracting it.

4 + -3 is equivalent to 4 - 3. They both equal 1.

Adding a negative # or subtracting a number reduces the value of the # you are subtracting. You move to the left on the number line when adding a negative #.

$$5 + -3 = 2$$

$$2 + -6 = -4$$

***** Adding opposite signs: the sign of the sum (answer) will be the same as the greater number**

SUBTRACTING INTEGERS:

Use a number line to help. Subtraction moves you further to the left on a number line. Subtraction is the same as adding the opposite of the integer.

$5 - 3$ is the same as $5 + -3$. You can change subtraction into addition with a negative number.

What about $-3 - 4$? Convert to $-3 + -4$. The answer is -7 .

There is one funky exception: What is the answer to $-3 -- -4$? Do the opposite for subtraction and you get $-3 + 4$.

***** Subtracting a negative # results in a positive #. *****

***** 2 negative signs in a row in subtraction equals a positive #. *****

