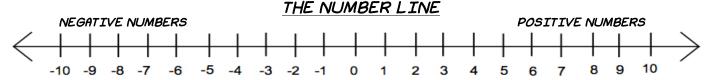
INTEGER CHEAT SHEET

<u>Integers</u>- A set of positive and negative whole numbers. They can be represented on a number line.



<u>Absolute Value</u>- The distance a number is from zero on the number line. An absolute value is never negative. Examples: l-5l=5 and l5l=5

adding integers

SAME SIGN- Add and Keep the Sign!

Add the absolute value of the numbers and keep the same sign.

$$(+4)+(+5)=+9$$

(negative) + (negative) = Negative

$$(-4) + (-5) = -9$$

<u>DIFFERENT SIGNS</u>- Subtract and Keep the Sign of the Bigger Number!

Subtract the absolute value of the numbers and keep the sign of the bigger number.

$$(-4)+(+5)=+1$$

 $(+4)+(-5)=-1$

SUBTRACTING INTEGERS

Do not subtract integers. You must change the signs:

"Add the Opposite"

KEEP- Keep the sign of the first number

<u>CHANGE</u> - Change the subtraction sign to addition

<u>CHANGE</u>- Change the sign of the second number to the opposite sign. If it is positive- change to negative. If it is negative- change to positive. (+4)-(-4)

NOW USE THE RULES FOR ADDING: SAME SIGN- Add absolute values and keep sign:

$$(+4) + (+4) = 8$$

MULTPLYING INTEGERS

<u>SAME SIGNS</u>- POSITIVE

Multiply the numbers. Answer will be positive.

$$(-5) \times (-5) = +25$$

<u>DIFFERENT SIGNS- NEGATIVE</u>
Multiply the numbers. Answer will be negative

$$(+5) \times (-5) = -25$$

DIVIDING INTEGERS

<u>SAME SIGNS</u>- POSITIVE

Divide the numbers. Answer will be positive.

$$(-5) \div (-5) = +1$$

<u>DIFFERENT SIGNS- NEGATIVE</u> Divide the numbers. Answer will be negative

$$(+5) \div (-5) = -1$$