## Rules for Integers 2009

## **ADDITION**

If both integers have the same sign = add them together "good guys + good guys" or "bad guys + bad guys"

Ex. 
$$5 + 9 = 14$$
  $-24 + -5 = -29$ 

If signs are different = subtract and take the sign of the bigger number. "good guys FIGHT with bad guys"

Ex. 
$$-5 + 9 = 4$$
  $-24 + 5 = -19$  (good guys win 9 vs. 5) (bad guys win 24 vs. 5)   
Answer is positive answer is negative

## SUBTRACTION

Add the opposite:

- 1. Turn the subtraction sign into an addition sign
- 2. Take the opposite of the second number
- 3. Follow rules of addition

Ex. 
$$-4 - 8$$
 turns into  $-4 + -8 = -12$ 

$$10 - (-9)$$
 turns into  $10 + 9 = 19$ 

## MULTIPLICATION and DIVISION (same rules)

If signs are the same = answer is POSITIVE

Ex. 
$$4 \bullet 7 = 28$$
  $-8(-5) = 40$ 

If signs are different = answer is NEGATIVE

Ex. 
$$-4(7) = 28$$
  $8 \cdot -5 = -40$