

### 1. Adding Rules:

Positive + Positive = Positive:  $5 + 4 = 9$

Negative + Negative = Negative:  $(-7) + (-2) = -9$

Sum of a negative and a positive number: Use the sign of the larger number and subtract

$$(-7) + 4 = -3$$

$$6 + (-9) = -3$$

$$(-3) + 7 = 4$$

$$5 + (-3) = 2$$

### 2. Subtracting Rules:

Negative - Positive = Negative:  $(-5) - 3 = -5 + (-3) = -8$

Positive - Negative = Positive + Positive = Positive:  $5 - (-3) = 5 + 3 = 8$

Negative - Negative = Negative + Positive = Use the sign of the larger number and subtract  
(Change double negatives to a positive)

$$(-5) - (-3) = (-5) + 3 = -2$$

$$(-3) - (-5) = (-3) + 5 = 2$$

### 3. Multiplying Rules:

Positive x Positive = Positive:  $3 \times 2 = 6$

Negative x Negative = Positive:  $(-2) \times (-8) = 16$

Negative x Positive = Negative:  $(-3) \times 4 = -12$

Positive x Negative = Negative:  $3 \times (-4) = -12$

### 4. Dividing Rules:

Positive  $\div$  Positive = Positive:  $12 \div 3 = 4$

Negative  $\div$  Negative = Positive:  $(-12) \div (-3) = 4$

Negative  $\div$  Positive = Negative:  $(-12) \div 3 = -4$

Positive  $\div$  Negative = Negative:  $12 \div (-3) = -4$

### Tips:

1. When working with rules for positive and negative numbers, try and think of weight loss or poker games to help solidify 'what this works'.
2. Using a number line showing both sides of 0 is very helpful to help develop the understanding of working with positive and negative numbers/integers.