## ADDING AND SUBTRACTING FRACTIONS



When we add or subtract fractions we need to make sure that they have the same \_\_\_\_\_.

Examples:

$$\frac{1}{4} + \frac{2}{4} = \frac{5}{6} - \frac{3}{6} = -$$

When two fractions \_\_\_\_\_ have the same denominator, we need to change them. First, we look to see if the denominators are \_\_\_\_\_ of each other.

$$\frac{1}{2} + \frac{1}{4} = \_\_ is a \text{ multiple of } \_\_.$$
  
Therefore, we can simply multiply  
$$\frac{1}{2} \times = \frac{2}{4} + \frac{1}{4} = \_$$
$$\frac{1}{2} \text{ by } \_\_ on \text{ the top and bottom.}$$

If the fractions are not multiples of each other, we need to cross multiply to get a common denominator.

$$\frac{1}{2} + \frac{1}{3} = ?$$
 First multiply the \_\_\_\_\_\_ together.  

$$\frac{1}{2} + \frac{1}{3} = ?$$
 Next, multiply the \_\_\_\_\_ number by  
the \_\_\_\_\_ side denominator.  

$$\frac{1}{2} + \frac{1}{3} = -$$
 We repeat the same step for the  
other side.  

$$- + - = -$$
 We now have fractions with the \_\_\_\_\_  
denominator and can \_\_\_\_\_ them.

## ADDING AND SUBTRACTING FRACTIONS



When we add or subtract fractions we need to make sure that they have the same denominator.

Examples:

 $\frac{1}{4} + \frac{2}{4} = \frac{3}{4} \qquad \qquad \frac{5}{6} - \frac{3}{6} = \frac{2}{6}$ 

When two fractions do not have the same denominator, we need to change them. First, we look to see if the denominators are multiples of each other.

$$\frac{1}{2} + \frac{1}{4} = 2 \text{ is a multiple of } 4.$$
  
Therefore, we can simply multiply  
$$\frac{1}{2} \times \frac{2}{2} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$
$$\frac{1}{2} \text{ by } 2 \text{ on the top and bottom.}$$

If the fractions are not multiples of each other, we need to cross multiply to get a common denominator.

 $\frac{1}{2} + \frac{1}{3} = ?$  First multiply the denominators together. 2x3 = 6, this is the new denominator.  $\frac{1}{2} + \frac{1}{3} = \frac{3}{6}$  Next, multiply the top number by the opposite side denominator.  $\frac{1}{2} + \frac{1}{3} = \frac{2}{6}$  We repeat the same step for the other side.  $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$  We now have fractions with the same denominator and can add them.