Add and Subtract Fractions

To add or subtract fractions we need to look at the denominators and check if they are like or unlike

Add. $\frac{3}{8} + \frac{1}{8}$

STEP 1 Are the denominators the same? YES.

$$\begin{array}{r} \frac{3}{8} \\ +\ \frac{1}{8} \\ \hline \end{array}$$

STEP 2 Add the numerators. The denominators stay the same.

$$\begin{array}{rl} \frac{3}{8} & \neg \text{ 3 eighths} \\ +\ \frac{1}{8} & \neg \text{ 1 eighths} \\ \hline \frac{4}{8} & \neg \text{ 4 eighths} \end{array}$$

STEP 3 Write the sum over the denominator. Write it in simplest form.

$$\begin{array}{r} \frac{3}{8} \\ +\ \frac{1}{8} \\ \hline \frac{4}{8} = \frac{1}{2} \end{array}$$

So, $\frac{3}{8} + \frac{1}{8} = \frac{1}{2}$

To subtract like fractions, subtract the numerators.
Remember, the denominators stay the same. Then write the difference over the denominator.

Examples:

A- Find the sum or difference.

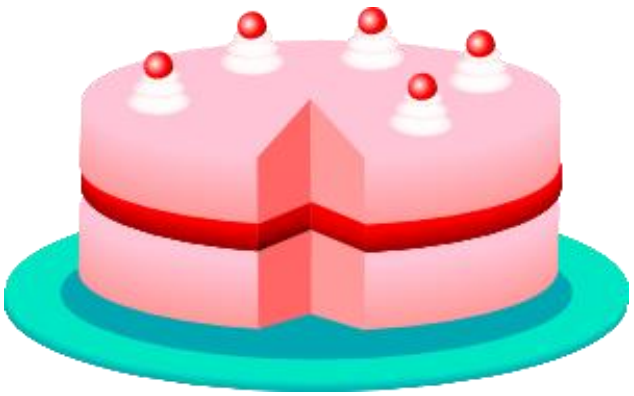
1) $\frac{1}{6} + \frac{1}{6}$ 2) $\frac{6}{7} - \frac{4}{7}$ 3) $\frac{3}{4} + \frac{5}{4}$ 4) $\frac{10}{9} - \frac{7}{9}$

$\frac{1+1}{6}$ $\frac{6-4}{7}$ $\frac{3+5}{4}$ $\frac{10-7}{9}$

$\frac{2}{6} = \frac{1}{3}$ $\frac{10}{7}$ $\frac{8}{4} = \frac{2}{1}$ $\frac{3}{9} = \frac{1}{3}$

My Real Life

Samar ate $\frac{1}{4}$ of the cake, and she gave $\frac{2}{4}$. How much of the cake was eaten?



$\frac{1}{4} + \frac{2}{4} = \frac{1+2}{4} = \frac{3}{4}$