Name:…… **Date:……**

Adding And Subtracting Fractions With Different Denominators.

Here is the fraction for one half: $\frac{1}{2}$ (1 ← Numerator; 2 ← Denominator)

Sometimes fraction problems involve adding and subtracting fractions with different denominators. For example,

$$\frac{1}{②} + \frac{1}{③}.$$

To solve this problem the denominators need to be the same. With the example above you need to find a common multiple of 2 → 2, 4, **6**, 8, ….
and 3 → 3, **6**, 9, 12, … This shows that 6 is a common multiple of 2 and 3.

Change each fraction to sixths: $\frac{1}{2} \times \frac{3}{3} = \frac{3}{6}$ and $\frac{1}{3} \times \frac{2}{2} = \frac{2}{6}$

Now add the two fractions together:

$$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$$

Find the common multiples of the fractions to solve the following problems.

1 $\frac{2}{5} + \frac{1}{2}$	2 $\frac{1}{4} + \frac{1}{3}$	3 $\frac{1}{3} - \frac{1}{5}$
4 $\frac{8}{10} - \frac{1}{2}$	5 $\frac{1}{6} + \frac{2}{3}$	6 $\frac{4}{5} - \frac{2}{10}$
7 $\frac{1}{4} - \frac{1}{6}$	8 $\frac{1}{3} + \frac{4}{9}$	9 $\frac{3}{5} + \frac{1}{4}$

Answers

1) $\frac{9}{10}$

2) $\frac{7}{12}$

3) $\frac{2}{15}$

4) $\frac{3}{10}$

5) $\frac{5}{6}$

6) $\frac{6}{10} = \frac{3}{5}$

7) $\frac{1}{12}$

8) $\frac{7}{9}$

9) $\frac{17}{20}$