Adding & subtracting fractions with LIKE DENOMINATORS:

$$\frac{1}{7} + \frac{3}{7} = \frac{4}{7}$$

To add fractions with the same denominator, add the numerator ONLY. The denominator stays the same in the answer.

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

Adding & subtracting fractions with UNLIKE DENOMINATORS:

$$\frac{3}{4} + \frac{5}{6}$$

These are UNLIKE Denominators
SO you need to find the **LCM**

(Least Common Multiple)

$4 | 4, 8, \underline{12}, 16, 20$

$6 | 6, \underline{12}, 18, 24, 30$

LCM 12

The LCM becomes the NEW DENOMINATOR

$$\frac{3}{4} \times \frac{3}{3} \quad \frac{9}{12}$$

Say what number x 4 will give me 12--- 3

$$\frac{5}{6} \times \frac{2}{2} \quad \frac{10}{12}$$

Say what number x 6 will give me 12----2

$$\frac{19}{12}$$

Drag your common denominator into your answer then just add (or subtract) your numerators

Multiplying Fractions:

Multiply across

$$\frac{2}{3} \times \frac{3}{12} = \frac{3\times2}{3\times12} = \frac{6}{36} = \frac{1}{6}$$

Reduce if needed

This fraction can be reduced by 6

Multiplying Fractions (harder problem):

1. Multiply.

$$\frac{3}{4} \times \frac{8}{9} = \frac{24}{36} \frac{\div 2}{\div 2} \frac{12 \div 2}{18 \div 2} \frac{6 \div 3}{9 \div 3} \frac{2}{3}$$

Dividing Fractions:
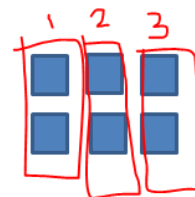
This is the MOST IMPORTANT PART

$$\frac{1}{2} \div \frac{1}{6}$$

leave me   change me   turn me over

$$\frac{1}{2} \times \frac{6}{1}$$

$$\frac{1}{2} \times \frac{6}{1} = \frac{6}{2} = 3$$

$$2\overline{)6} = \frac{3}{6} \quad \frac{6}{0}$$