To add/subtract like fractions

(fractions w/ the same denominator)

1. Add/subtract the numerators (the # on the top)
2. Use the same denominator in the problem in the answer
3. Reduce to put in simplest form

$$\frac{3}{10}+\frac{2}{10}=\frac{5}{10} \quad = \frac{1*5}{2*5} = \frac{1}{2}$$

To add/subtract unlike fractions

(fractions w/ different denominators)

1. To add/subtract unlike fractions, you must change them to like fractions
2. To do this you, you must find a common denominator
3. The easiest way to find a common denominator is to multiply them together
4. Then, multiply each numerator by the same thing as the denominator
5. Finally, add the two fractions together as above

$$\frac{3}{6}+\frac{1}{4}=\frac{3_{*4}}{6_{*4}}+\frac{1_{*6}}{4_{*6}}=\frac{12}{24}+\frac{6}{24}=\frac{18}{24}=\frac{2*3*3}{2*2*2*3}=\frac{3}{4}$$

To multiply fractions

1. Multiply the numerators
2. Multiply the denominators
3. Reduce to put into simplest form

* you do <u>not</u> have to find a common denominator, just multiply across

$$\frac{5}{6}*\frac{4}{5}=\frac{20}{30}=\frac{2*2*5}{2*3*5}=\frac{2}{3}$$

To divide fractions

1. Change the operation sign to multiplication and change the second fraction (the divisor) to its reciprocal
   - In other words, change the sign and flip the numbers on the second fraction
2. Follow the rules for multiplying fractions
3. Reduce to put in simplest form

$$\frac{4}{7}\div\frac{2}{3}=\frac{4}{7}*\frac{3}{2}=\frac{12}{14}=\frac{2*2*3}{2*7}=\frac{6}{7}$$