Fraction Rules!

Converting a fraction to a decimal:

Divide the numerator by the denominator (numerator IN the box!)

Example: $\frac{1}{8}$ becomes $8\overline{)1.000}$

Friendly fraction denominators are all factors of 10 and 100, since our place values are tenths and hundredths! 2, 4, 5, 10, 20, 25, 50, 100 can all create an equivalent fraction with 10 or 100 as the denominator. Whatever you multiply the denominator by, you multiply the numerator by. The numerator becomes the decimal!

Examples: $\frac{2}{5} = \frac{4}{10} = .4$ $\frac{16}{25} = \frac{64}{100} = .64$

A special denominator is 9. When the denominator is 9, or 99, the numerator will repeat! (remember 3 can become a 9!)

Example: $\frac{5}{9} = .\overline{5}$ $\frac{34}{99} = .\overline{34}$

Adding and Subtracting Fractions:

When adding or subtracting fractions you need a common denominator. The common denominator is the least common multiple of the two denominators. Whatever you multiply the denominator by, you multiply the numerator by. Add or subtract the numerators and the denominator will stay the same.

Example: $\frac{2}{3} + \frac{1}{5} = \frac{10}{15} + \frac{3}{15} = \frac{13}{15}$

Multiplying Fractions:

Multiply the numerators and multiply the denominators. You may cross reduce first to help simplify. If you have a mixed number, you must first convert it to an improper fraction.

Example: $\frac{2}{3} \times \frac{2}{7} = \frac{4}{21}$

Dividing Fractions:

When dividing fractions we do the Keep Change Flip. Keep the first fraction (the numerator in a complex fraction), Change the division to multiplication, Flip, or take the reciprocal, of the second fraction (the denominator in a complex fraction). If you have a mixed number, you must first convert it to an improper fraction.

Example: $\frac{2}{9} \div \frac{3}{5} = \frac{2}{9} \times \frac{5}{3} = \frac{10}{27}$

*ALWAYS SIMPLIFY YOUR ANSWERS!