Fractions

Remember :

Fraction Procedure:

1. Changes mixed numbers into improper fractions
2. Then apply the appropriate main rule:
   a. When doing **addition** and **subtraction** of fractions the denominators need to be the same.
   b. When doing **multiplication** just times the numerators and then the denominators.
3. When you have the answer then simplify.
4. Turn back into a mixed number if possible.

ORDER OF OPERATION

1. Brackets First
2. X and ÷ from Left to right
3. + and − from left to right

Fractions

Addition

$$\frac{7}{8}+\frac{3}{4}$$

$$= \frac{7}{8}+\frac{6}{8}$$

$$= \frac{13}{8}$$

$$= 1\frac{5}{8}$$

$$2\frac{6}{8}+3\frac{2}{4}$$

$$= \frac{22}{8}+\frac{14}{4}$$

$$= \frac{22}{8}+\frac{28}{8}$$

$$= \frac{50}{8}$$

$$= 6\frac{1}{4}$$

Multiplication

$$\frac{6}{10}\times\frac{2}{3}$$

$$= \frac{12}{30}$$

$$= \frac{6}{15}$$

Subtraction

$$\frac{7}{8}-\frac{3}{4}$$

$$= \frac{7}{8}-\frac{6}{8}$$

$$= \frac{1}{8}$$

Decimals

Decimals to Common Fractions

$$0.8 = \frac{8}{10}$$

$$= \frac{4}{5}$$

$$1.18 = 1\frac{18}{100}$$

$$= 1\frac{9}{50}$$

Common Fractions to Decimals

$$\frac{2}{3} = 2 \div 3$$

$$= 0.66666$$

$$\doteqdot 0.67$$

$$\frac{7}{8} = 7 \div 8$$

$$= 0.875$$

$$\doteqdot 0.88$$

Recurring: The same number recurs
Terminating: Ends
Non-terminating: same couple of numbers repeating over and over.

Multiplying Decimal

When multiplying by a decimal ignore the decimal point and multiply together.

$$\begin{array}{r} 4.6 \\ \times\ 6 \\ \hline 27.6 \end{array}$$

Dividing Decimal

When dividing by a decimal we change the divisor into a whole number by moving the decimal place the require number of spaces on both sides.

$$0.8 \div 0.04$$

$$= \quad 8\overline{)0.4}$$

$$= \quad 8\overline{)0.40}^{\,0.05}$$

$$= \quad 0.05$$

When **adding or subtracting** decimal make sure the decimal point is in a line above each other.