Converting Fractions, Decimals, and Percents

I. Converting Fractions to Decimals

Remember – Fraction bar means to divide
1.) Numerator goes on the inside
2.) Add a decimal and a zero
3.) Bring decimal up
4.) Divide as usual
5.) Keep adding zeros until you get a zero remainder or repeating decimal

Examples:

1.) $\frac{2}{5}$

$5\overline{)2.0}$ → 4, 20, 0

$\frac{2}{5} = \boxed{0.4}$

2.) $3\frac{3}{4}$

$4\overline{)3.00}$ → 3.75, 12, 30, 28, 20, 20, 0

$3\frac{3}{4} = \boxed{3.75}$

3.) $5\frac{1}{6}$

$6\overline{)31.000}$ → 5.166, 30, 10, 6, 40, 36, 40, 36, 4

$5\frac{1}{6} = \boxed{5.1\overline{6}}$

II. Converting Decimals to Fractions

1.) Whole number stays the same
2.) The number after the decimal becomes the numerator
3.) Use the place value of the last digit for the denominator
4.) Simplify

Examples:

1.) 10.25

$10\frac{25}{100} \div \frac{4}{4} = \boxed{10\frac{1}{4}}$

2.) 0.2

$\frac{2}{10} \div \frac{2}{2} = \boxed{\frac{1}{5}}$

3.) 5.08

$5\frac{8}{100} \div \frac{4}{4} = \boxed{5\frac{2}{25}}$

III. Converting Percents to Decimals

1.) Move the decimal two places
* **Percent to Decimal** – move two places to the **left**
***Decimal to Percent** - move two places to the **right**

Examples:

1.) 17% → .17 → 17% = 0.17

2.) 0.025 → 0.025 → 0.025 = 2.5%

3.) 2.37 → 2.37 → 2.37 = 237%

IV. Converting Fractions to Percents

1.) Change the fraction to a decimal (divide!)
2.) Move the decimal two places to the **right**

Examples:

1.) $\frac{4}{5}$

$$5\overline{)4.0} = .8 \qquad 40 \qquad 0$$

.80 → $\frac{4}{5}$ = 80%

2.) $\frac{1}{8}$

$$8\overline{)1.000} = .125 \qquad 8 \qquad 20 \qquad 16 \qquad 40 \qquad 40 \qquad 0$$

.125 → $\frac{1}{8}$ = 12.5%

V. Converting Percent to Fractions

1.) Put the percent over 100
2.) Simplify!

Examples:

1.) $44\% = \frac{44}{100} \div \frac{4}{4} = \frac{11}{25}$

2.) $8\% = \frac{8}{100} \div \frac{4}{4} = \frac{2}{25}$