Changing Fractions to Decimals and Percents

Fraction to decimal: divide the numerator by the denominator

eg) $\frac{3}{4} = 3 \div 4 = 0.75$

Decimal to percent: Multiply the decimal by 100 and add a percent symbol.

eg) $0.75 \times 100 = 75\%$

Fraction to Percent: Combine the above 2 steps.

eg 1) $\frac{3}{4} \rightarrow 3 \div 4 = 0.75 \times 100 = 75\%$

eg 2) $\frac{3}{10} \rightarrow 3 \div 10 = 0.3 \times 100 = 30\%$

eg 3) $\frac{21}{25} \rightarrow 21 \div 25 = 0.84 \times 100 = 84\%$

Percent to decimal: Divide the percent by 100.

eg 1) $87\% \div 100 = 0.87$

eg 2) $32.5\% \div 100 = 0.325$

Decimal → fraction: Look at the last number and determine it's place value. This is your denominator. The number is your numerator.

eg) $0.146 = \frac{146}{1000}$

(0.146 ↑ thousandths; $\frac{146}{1000}$ ↗)

eg2) $2.7 = \frac{27}{10}$ or $2\frac{7}{10}$

(2.7 ↑ tenths; $\frac{27}{10}$ ↗)

eg3) $0.03 = \frac{3}{100}$

(0.03 ↑ hundredths; $\frac{3}{100}$ ↗)

Percent to fraction: Recall percent means per or out of 100.

So,

$13\% = \frac{13}{100}$

$6\% = \frac{6}{100}$

$254\% = \frac{254}{100}$ or $2\frac{54}{100}$

– if our percent is fractional, we need to multiply the decimal out of it.

eg) $54.5\% = \frac{54.5}{100} \overset{\times 10}{=} \frac{545}{1000}$ ($\times 10$ on both)

$3.85\% = \frac{3.85}{100} \overset{\times 100}{=} \frac{385}{10000}$ ($\times 100$ on both)

$78\frac{4}{5}\% = 78.8\% = \frac{78.8}{100} \overset{\times 10}{=} \frac{788}{1000}$ ($\times 10$ on both)