Basic Skill: Converting Decimals to Fractions

You write a decimal as a fraction exactly the way you read it.

Ex. 0.625 is said as six hundred twenty five thousandths, and so,

$$0.625 = \frac{625}{1000}$$

Remember place value

An easy way to remember how many zeroes go in the denominator

The denominator, when you convert a decimal to a fraction, is a 1 followed by the same number of zeroes as your original decimal had.

Ex. 0.2837452 has7 digits after the decimal point and so, its denominator is a 1 with 7 zeroes after it, or 10,000,000. Therefore

$$0.2837452 = \frac{2,837,452}{10,000,000}$$

Then, all you need to do is reduce the fraction.

- Fractions are reduced by dividing the Greatest Common Factor (GCF) out of the numerator and denominator of the fraction.
- Ex. $\frac{625}{1000}$
  GCF (625, 1000) = 125, so
  $$\frac{625 \div 125}{1000 \div 125} = \frac{5}{8}$$
- Fractions can also be reduced by repeatedly dividing any common factor out of the numerator and denominator.
- Ex. $\frac{625 \div 5}{1000 \div 5} = \frac{125}{200}$
  $$= \frac{125 \div 5}{200 \div 5} = \frac{25}{40}$$
  $$= \frac{25 \div 5}{40 \div 5} = \frac{5}{8}$$