



# CONVERT DECIMAL TO FRACTION SUPPORT PAGE

To convert a decimal to a fraction, follow these steps:

- *Step 1) Put the decimal over a denominator of 1 to make it into a fraction.*
- *Step 2) Multiply the numerator and denominator by  $10^n$ , where  $n$  is the number of decimal places the decimal has.*
- *Step 3) (Optional) Simply the fraction you have made by dividing the numerator and denominator by the highest common factor.*

Example: Convert 0.815 into a fraction in simplest form

1) Put the decimal over a denominator of 1.

$$0.815 = \frac{0.815}{1}$$

2) Multiply the numerator and denominator by  $10^3$ , since the decimal 0.815 has 3 decimal places.  $10^3 = 10 \times 10 \times 10 = 1000$

This gives us: 
$$\frac{0.815}{1} = \frac{0.815}{1} \times \frac{1000}{1000} = \frac{0.815 \times 1000}{1 \times 1000} = \frac{815}{1000}$$

3) To find the simplest form divide the numerator and denominator by the highest common factor which is 5.

$$\frac{815}{1000} = \frac{815 \div 5}{1000 \div 5} = \frac{163}{200}$$

Final answer  $0.815 = \frac{163}{200}$

