

Converting Between Fractions and Decimals


Decimal to fraction

To convert a decimal to a fraction, look at the place value of the digits in the decimal.

 **Example** Write 0.43 as a fraction.

$$0.43 = \frac{43}{100}$$

The lowest place value is **hundredths**.

 **Example** Write 0.245 as a fraction.

$$0.245 = \frac{245}{1000} \div 5 = \frac{49}{200}$$

The lowest place value is **thousandths**.

Simplify if possible.

Fraction to decimal

To convert a fraction to a decimal, write the fraction as an equivalent division and work out the answer.

 **Example** Write $\frac{2}{5}$ as a decimal.

1 Write the fraction as a division: $\frac{2}{5} = 2 \div 5$

2 Use short division to work out the answer as a decimal:

$$\begin{array}{r} 0.4 \\ 5 \overline{)2.0} \end{array}$$

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