

Converting Between Percentages and Fractions

Percentage to fraction

To convert a **percentage to a fraction**, write the percentage as a fraction out of 100 and then cancel to its simplest form.

 **Example** Write 40% as a fraction.

$$40\% = \frac{40}{100}$$

Percent means "out of 100" so 40% is 40 out of 100


$$\frac{40}{100} \xrightarrow{\div 10} \frac{4}{10} \xrightarrow{\div 2} \frac{2}{5}$$

Cancel the fraction to its simplest form.

So 40% as a fraction is $\frac{2}{5}$

Fraction to percentage (equivalent fractions)


If the denominator is a factor of 100, you can use equivalent fractions to do the conversion.

 **Example** Write $\frac{3}{4}$ as a percentage.

$$\frac{3}{4} \xrightarrow{\times 25} \frac{75}{100} = 75\%$$

75 out of 100 is 75%

Fraction to percentage (division)

 **Example** Write $\frac{5}{8}$ as a percentage.

$$\frac{5}{8} = 5 \div 8 = 0.625 = 62.5\%$$

3 Change decimal to percentage ($\times 100$)

1 Write the fraction as a division.

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