

Unit 7: Fractions and Percentages

<ul style="list-style-type: none"> • Digits after the decimal point represent fractions. $0.1 = \frac{1}{10} = 1 \text{ tenth}$ $0.01 = \frac{1}{100} = 1 \text{ hundredth,}$ $0.001 = \frac{1}{1000} = 1 \text{ thousandth, etc.}$ 	<ul style="list-style-type: none"> • To add or subtract fractions, they must have a common denominator. • To multiply two fractions, multiply their numerators and multiply their denominators. • The reciprocal of a fraction is the 'upside down' fraction. A number multiplied by its reciprocal is always 1. The reciprocal of $\frac{3}{5}$ is $\frac{5}{3}$. • Dividing a fraction is the same as multiplying by its reciprocal.
<ul style="list-style-type: none"> • A number rounded to 2 decimal places (2 dp) has two digits after the decimal point. • A number rounded to 3 decimal places (3 dp) has three digits after the decimal point. • You can round numbers to a certain number of significant figures (s.f.). The first significant figure is the one with the highest place value. It is the first non-zero digit in the number, counting from the left. 	<ul style="list-style-type: none"> • An improper fraction has a numerator that is bigger than its denominator, for example $\frac{3}{2}$. A mixed number has a whole number part and a fraction part, for example $1\frac{1}{2}$.
<ul style="list-style-type: none"> • Equivalent fractions have the same value. • You can find equivalent fractions by multiplying or dividing the numerator and denominator by the same number. • You can simplify fractions by dividing the numerator and denominator by a common factor. To write a fraction in its simplest form, divide the numerator and denominator by their highest common factor (HCF). 	<ul style="list-style-type: none"> • You can add or subtract mixed numbers by adding or subtracting the whole numbers first, then writing the fraction parts with a common denominator to add or subtract them. • It can be easier to write mixed numbers as improper fractions before subtracting. • Write mixed numbers as improper fractions before multiplying or dividing.
<ul style="list-style-type: none"> • A fraction is part of a whole. • The number above the line in a fraction is the numerator. • The number below the line in a fraction is the denominator. 	<ul style="list-style-type: none"> • Per cent means 'out of 100'. % stands for 'per cent'. 50% means '50 out of 100', which is $\frac{50}{100}$. • You can write any percentage as a fraction with denominator 100. • You can write a percentage as a fraction and then convert to a decimal. You can write a decimal as a fraction with denominator 100 and then convert to a percentage.