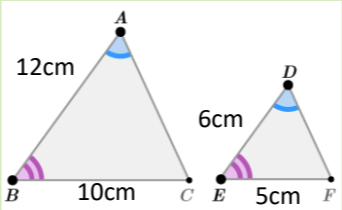
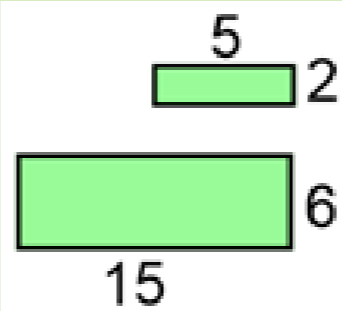


# Maths

Ratio		Proportion		Fractions	
<b>Ratio</b>	<p>A part to part comparison.</p> <p>The ratio of a to b is written as a:b</p> <p>You say the ratio 2:5 as “two to five”</p> <p>This means for every 2 <b>parts</b> of one thing, there are 5 of another.</p> <p>In ratios, all parts are of <b>equal size</b>.</p> <p>This allows us to <b>share</b> quantities into given ratios.</p> <p>Ratios can also be expressed as fractions.</p>	<b>Double</b>	To multiply by 2.	<b>Numerator</b>	The top number in a fraction. It tells us how many parts we have.
<b>Unit Ratio</b>	<p>Ratios in the form 1:n are called <b>unit ratios</b>.</p> <p><b>These</b> are useful for making comparisons.</p>	<b>Treble</b>	To multiply by 3.	<b>Denominator</b>	The bottom number in a fraction. It shows how many parts the item has been split into.
<b>Equivalent Ratios</b>	<p>Two <b>ratios</b> are <b>equivalent</b> if they can both be simplified to the same ratio.</p> <p>e.g. 8:4 is equivalent to 4:2 because they both simplify to a ratio of 2:1</p>	<b>Currency</b>	The money used by a country.	<b>Unit Fraction</b>	A fraction with a numerator of 1 e.g. $\frac{1}{4}$
<b><math>\pi</math> (Pi)</b>	The ratio of the circumference compared to the diameter. It is equal to approximately 3.14	<b>Sterling</b>	The British currency - Great British Pounds £.	<b>Non-unit Fraction</b>	A fraction with a numerator that is greater than 1 e.g. $\frac{3}{4}$
<b>Circumference</b>	The perimeter of a circle.	<b>Conversion Rate</b>	The ratio between two currencies. e.g. £1 = \$1.20	<b>Proper Fraction</b>	A fraction that has a numerator that is less than the denominator. e.g. $\frac{3}{4}$
<b>Radius</b>	The distance from the centre of the circle to the circumference. It is half the length of the diameter.	<b>Similar Shapes</b>	<p>Shapes that have corresponding sides that are proportional and corresponding angles that are equal.</p> 	<b>Improper Fraction</b>	A fraction that has a numerator that is greater than the denominator e.g. $\frac{7}{4}$
<b>Diameter</b>	The distance from one part of the circumference to another, passing through the centre. It is double the length of the radius.	<b>Scale Factor</b>	<p>Scale Factor shows the enlargement between the corresponding (matching) sides of two shapes.</p> <p>e.g. the scale factor between these two rectangles is 3, as <math>15 \div 5 = 3</math> and <math>6 \div 2 = 3</math></p> 	<b>Mixed Number</b>	A number with a whole part and a proper fractional part e.g. $5\frac{3}{4}$
		<b>Direct Proportion</b>	<p>The relationship between variables whose ratio is constant. They will increase and decrease at the same rate.</p> <p>e.g. if 3 oranges cost 45p, then 1 orange costs 15p or 6 oranges cost 90p</p>	<b>Equivalent Fractions</b>	Fractions that hold the same value. e.g. $\frac{3}{5} = \frac{9}{15}$
				<b>Quotient</b>	The result of a division e.g. $70 \div 10 = 7$ 7 is the quotient. e.g. the reciprocal of 3 is $\frac{1}{3}$ because $3 \times \frac{1}{3} = 1$
				<b>Reciprocal</b>	Two numbers whose product is 1 $\frac{1}{3} + \frac{1}{6} = \frac{2}{6} + \frac{1}{6} = \frac{3}{6}$
				<b>Adding and Subtracting Fractions</b>	To add or subtract a fraction we first have to find a common denominator. We then add or subtract the numerators. $\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$
				<b>Multiplying Fractions</b>	To multiply fractions together we find the product of the numerator and the product of the denominator. $\frac{3}{5} \div \frac{2}{7} = \frac{3}{5} \times \frac{7}{2} = \frac{21}{10}$
				<b>Dividing Fractions</b>	When dividing fractions we multiply by the reciprocal.