



# Year 7 - Term 5 - Kemnal Keys



Unit 8: Area	Unit 9: Ratio and Proportion	Unit 10: Lines and Angles
<ul style="list-style-type: none"> <li>Area of a Parallelogram = base <math>\times</math> perpendicular height. This can be written as <math>A = bh</math>.</li> <li>The height measurement must be perpendicular (at <math>90^\circ</math>) to the base.</li> <li>Area of a Trapezium = <math>\frac{1}{2} \times</math> sum of parallel lengths <math>\times</math> height. This can be written as <math>A = \frac{1}{2} (A + B)h</math>.</li> </ul>	<ul style="list-style-type: none"> <li>A ratio is a way of comparing two or more quantities.</li> <li>Ratios are written as numbers separated by a colon (:). For example, if a tile pattern has 2 blue tiles for 1 red tile, the ratio of blue tiles to red tiles is 2:1.</li> <li>You can make the numbers in a ratio as small as possible by simplifying.</li> </ul>	<ul style="list-style-type: none"> <li>Angle measures a turn. Angles are measured in degrees (<math>^\circ</math>).</li> <li>A whole turn is <math>360^\circ</math>.</li> <li>A right angle is a quarter turn, or <math>90^\circ</math>.</li> <li>A half turn is <math>180^\circ</math>.</li> <li>A square drawn on an angle means an angle is a right angle.</li> <li>An acute angle is smaller than <math>90^\circ</math>.</li> <li>An obtuse angle is between <math>90^\circ</math> and <math>180^\circ</math>.</li> <li>A reflex angle is between <math>180^\circ</math> and <math>360^\circ</math>.</li> </ul>
<ul style="list-style-type: none"> <li>To work out the area of a rectangle or a square, multiply the length by the width.</li> <li>To work out the area of a shape made from rectangles, it helps to split the shape into smaller rectangles.</li> </ul>	<ul style="list-style-type: none"> <li>Multiplying all numbers in a ratio by the same number gives an equivalent ratio.</li> <li>When sharing in a ratio, follow the steps below:               <ol style="list-style-type: none"> <li>Add up the ratio to find the total number of parts.</li> <li>Divide the total amount by the number of parts.</li> <li>Multiply the ratio to find each person's share.</li> <li>Check these add up to the original amount.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>The number of equal sides and angles can help you identify a triangle. Equal sides are marked using a dash. Equal angles are shown using the same number of arcs.</li> <li>You can describe a triangle using the letters at its vertices (the plural of vertex). The vertices are the corners.</li> </ul>
<ul style="list-style-type: none"> <li>When finding the area or perimeter of a shape, follow the algebraic rules listed below:               <ol style="list-style-type: none"> <li>Like terms contain the same letter (or contain no letter). For example, <math>5x</math> and <math>7x</math> are like terms, but <math>4x</math> and <math>3y</math> are not like terms. You simplify an expression by collecting like terms.</li> <li>To multiply out or expand expressions with brackets, multiply everything inside the bracket by the number outside.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>When two quantities are in direct proportion, as one increases or decreases, the other increases or decreases at the same rate. This means that when one quantity is zero, so is the other; when one doubles, so does the other; when one is multiplied by 3, so is the other, etc.</li> <li>In the unitary method, you find the value of one item before finding the value of more.</li> </ul>	<ul style="list-style-type: none"> <li>Angle ABC refers to the route followed to create an angle. This route would be from Vertex A, to Vertex B, to Vertex C. The angle to be measured, would be at Vertex B.</li> <li>Perpendicular lines are at right angles (<math>90^\circ</math>) to each other. Parallel lines are always the same distance apart, and never meet.</li> </ul>