

# Overview of Numbers and Operations

	1.0	2.0	3.0	4.0	5.0	6.0
<b>Whole Numbers</b>	<ul style="list-style-type: none"> <li>1 to 10</li> <li>0 to 20</li> <li>0 to 100</li> </ul>	<ul style="list-style-type: none"> <li>0 to 1000</li> </ul>	<ul style="list-style-type: none"> <li>0.01 to 9999</li> </ul>	<ul style="list-style-type: none"> <li>0.001 to millions and beyond</li> </ul>	<ul style="list-style-type: none"> <li>calculate with powers</li> <li>binary numbers</li> </ul>	
<b>Fractions</b>		<ul style="list-style-type: none"> <li>unit fractions</li> <li>equivalent fractions</li> </ul>	<ul style="list-style-type: none"> <li>× with models link to ratios</li> </ul>	<ul style="list-style-type: none"> <li>+, -, × ÷</li> </ul>		
<b>Decimals</b>		<ul style="list-style-type: none"> <li>money amounts</li> </ul>	<ul style="list-style-type: none"> <li>hundredths +, -</li> </ul>	<ul style="list-style-type: none"> <li>thousandths +, -, × (2 decimal place)</li> </ul>	<ul style="list-style-type: none"> <li>link with fractions, ratios, %</li> </ul>	<ul style="list-style-type: none"> <li>calculate in index form</li> <li>system of real numbers</li> </ul>
<b>Integers</b>				<ul style="list-style-type: none"> <li>count into negatives</li> </ul>	<ul style="list-style-type: none"> <li>all operations, with models and as inverses</li> </ul>	
<b>Irrationals</b>					<ul style="list-style-type: none"> <li>irrational numbers (pi, square roots etc)</li> <li>surd arithmetic</li> </ul>	
<b>Meanings of addition and subtraction</b>	<ul style="list-style-type: none"> <li>combine two sets</li> </ul>	<ul style="list-style-type: none"> <li>change one set (add to or take away from)</li> </ul>	<ul style="list-style-type: none"> <li>compare two sets</li> </ul>		<ul style="list-style-type: none"> <li>'compare' important to subtract a negative number</li> </ul>	
<b>Meanings of multiplication</b>	<ul style="list-style-type: none"> <li>make equal groups</li> </ul>	<ul style="list-style-type: none"> <li>× as repeated addition skip count</li> </ul>	<ul style="list-style-type: none"> <li>array model</li> <li>area model</li> </ul>	<ul style="list-style-type: none"> <li>enlargement and reduction (include numbers &lt; 1)</li> </ul>	<ul style="list-style-type: none"> <li>working with %, rates, ratios</li> </ul>	
<b>Meanings of division</b>		<ul style="list-style-type: none"> <li>partition</li> </ul>	<ul style="list-style-type: none"> <li>quotition</li> <li>inverse of multiplication</li> </ul>	<ul style="list-style-type: none"> <li>don't divide by zero</li> </ul>	<ul style="list-style-type: none"> <li>working with %, rates, ratios</li> </ul>	
<b>Factors</b>		<ul style="list-style-type: none"> <li>skip counting</li> </ul>	<ul style="list-style-type: none"> <li>multiplication tables</li> </ul>	<ul style="list-style-type: none"> <li>lcm from sets of multiples square numbers</li> </ul>	<ul style="list-style-type: none"> <li>factors &amp; factor trees</li> <li>factorisation into prime powers</li> </ul>	<ul style="list-style-type: none"> <li>hcf, lcm from prime factors</li> <li>hcf from Euclidean Algorithm</li> </ul>
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