

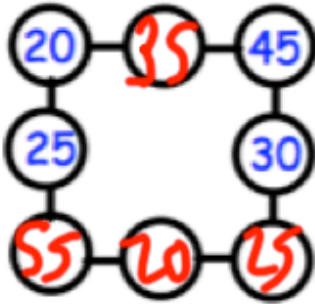

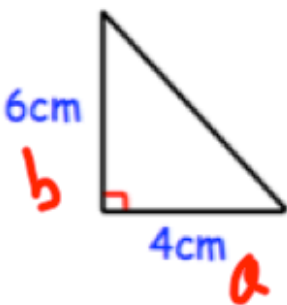
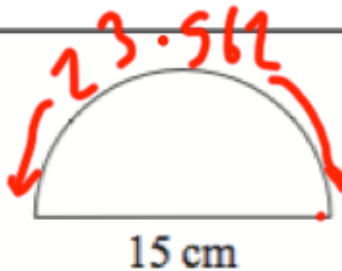


January 1st	5-a-day	Numeracy
<p>Below is 8 twenty pence pieces. What is the <b>total value</b> of the coins?</p> 		<p>£1.60</p>
	<p>The time shown on the clock is 9:24am. Write 9:24am as 24 hour time: <u>09:24</u></p> <p>Write 1:15pm as 24 hour time: <u>13:15</u></p>	
<p>In the diagram, three circles in a straight line <b>must add to 100</b>. Write in the missing numbers.</p>		
<p>Menu Tea £1.50 Coffee £2.00 Flapjack £2.50</p> <p>Jack pays for <b>two coffees</b> and <b>two flapjacks</b>. Altogether how much do they cost?</p>	 <p>£9</p>	
<p>Max pays for one <b>tea</b>, one <b>coffee</b> and one <b>flapjack</b>. He pays with a £10 note. How much change should he get?</p>	<p>1.50 2.00 2.50 <u>6.00</u></p>	<p>2 10-£6 = £4</p>

January 1st	5-a-day	Foundation
<p>Solve the inequality <math>3x + 2 \leq 8</math></p>	$3x \leq 6$ $x \leq 2$	
<p>A car decreases in value 10% a year. If it was bought for £5000, how much will it be worth after 2 years?</p>	<p>£5000    10% = £500 1<sup>st</sup> year    £4500 2<sup>nd</sup> year    £4050</p>	
 <p>6cm b 4cm a</p>	$a^2 + b^2 = c^2$ $4^2 + 6^2 = c^2$ $16 + 36 = c^2$ $52 = c^2$	<p>Calculate the length of the missing side</p> $c = \sqrt{52}$ $= 7.2\text{cm}$
<p>Simplify <math>t^6 \times t^2</math></p>	$t^8$	<p>Simplify <math>\frac{m^8}{m^3}</math></p> $m^5$
 <p>15 cm</p>	$\frac{\pi \times 15}{2} = 23.562$ $23.562 + 15 = 38.562\text{cm}$	<p>Calculate the perimeter of this semi-circle.</p>

January 1	5-a-day	Higher								
<p>In May 2011, the population of a country was 28 million. By May 2012, the population had increased by 3%</p> <p>Work out the population in May 2012.</p>		$28,000,000 \times 1.03$ $= 28,840,000$								
<p>Explain what is meant by a stratified sample.</p> <p><b>A stratified sample is a sample where the sample is in the same proportions as the entire population.</b></p>										
<table border="1" data-bbox="177 981 770 1061"> <thead> <tr> <th>Teachers</th> <th>Teaching Assistants</th> <th>Admin</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>94</td> <td>16</td> <td>41</td> <td>29</td> </tr> </tbody> </table> <p>A sample of 30 is selected by stratified sampling. How many "Other" are selected?</p>	Teachers	Teaching Assistants	Admin	Other	94	16	41	29	$= 180$ $\frac{29}{180} \times 30 = 4.83$ <p><b>5</b> (or 4 depending on others)</p>	
Teachers	Teaching Assistants	Admin	Other							
94	16	41	29							
<p>A is directly proportional to the square root of B.</p> <p>When A = 50, B = 4.</p> <p>Find A in terms of B.</p>	$A \propto \sqrt{B}$ $A = k \times \sqrt{B}$ $50 = k \times \sqrt{4}$ $k = 25$	$A = 25\sqrt{B}$								
<p>Prove <math>(2n + 2)^2 - (2n + 1)</math> is always odd.</p>	$(2n+2)(2n+2) - (2n+1)$ $4n^2 + 8n + 4 - (2n+1)$	$= 4n^2 + 6n + 3$ <p>↑ even    ↑ even    ↑ odd = <u>odd</u></p>								