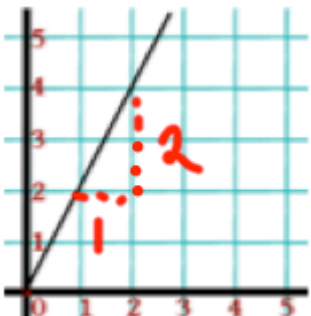
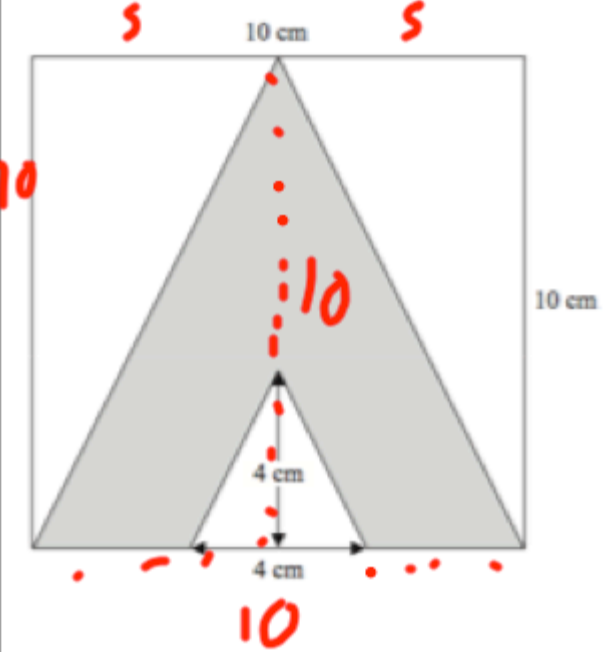
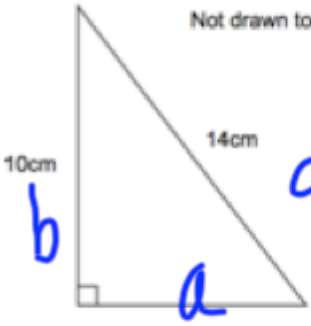


July 25th	5-a-day	Numeracy																																																							
<p>Work out <math>695 - 596</math></p> <p style="text-align: center; font-size: 24pt; color: blue;">99</p>	<p>Work out <math>845 \div 5</math></p> <p style="text-align: center; font-size: 24pt; color: blue;">169</p>																																																								
<p>Write down all the prime numbers between 4 and 15</p> <p style="text-align: center; font-size: 24pt; color: blue;">7, 11, 13</p>	<p>Write the first square number which is greater than 9</p> <p style="text-align: center; font-size: 24pt; color: blue;">16</p>																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Belfast City Centre, Europa Buscentre</td> <td style="text-align: center;">—</td> <td style="text-align: center;">1850</td> <td style="text-align: center;">1930</td> <td></td> </tr> <tr> <td>Belfast City Centre, Albert Clock Queens Square</td> <td style="text-align: center;">—</td> <td style="text-align: center;">1852</td> <td style="text-align: center;">1932</td> <td></td> </tr> <tr> <td>Belfast City Centre, Laganside Buscentre</td> <td style="text-align: center;">1820</td> <td style="text-align: center;">••••</td> <td></td> <td></td> </tr> <tr> <td>Hollywood, Cedar Grove</td> <td style="text-align: center;">1832</td> <td style="text-align: center;">1905</td> <td style="text-align: center;">1945</td> <td></td> </tr> <tr> <td>Hollywood, Health Centre</td> <td style="text-align: center;">1845</td> <td style="text-align: center;">1918</td> <td style="text-align: center;">1958</td> <td></td> </tr> <tr> <td>Cultra, Ulster Folk &amp; Transport Museum</td> <td style="text-align: center;">1849</td> <td style="text-align: center;">1922</td> <td style="text-align: center;"><del>2002</del></td> <td></td> </tr> <tr> <td>Crawfordsburn, Crawfordsburn Inn</td> <td></td> <td style="text-align: center;">1928</td> <td></td> <td></td> </tr> <tr> <td>North Down, Rathmore Shops</td> <td></td> <td style="text-align: center;">1933</td> <td></td> <td></td> </tr> <tr> <td>North Down, Kilcooley Terminus</td> <td style="text-align: center;">1855</td> <td></td> <td style="text-align: center;">2008</td> <td></td> </tr> <tr> <td>Bangor, Buscentre</td> <td style="text-align: center;">1910</td> <td style="text-align: center;">1940</td> <td style="text-align: center;">2020</td> <td></td> </tr> </tbody> </table>								Belfast City Centre, Europa Buscentre	—	1850	1930		Belfast City Centre, Albert Clock Queens Square	—	1852	1932		Belfast City Centre, Laganside Buscentre	1820	••••			Hollywood, Cedar Grove	1832	1905	1945		Hollywood, Health Centre	1845	1918	1958		Cultra, Ulster Folk & Transport Museum	1849	1922	<del>2002</del>		Crawfordsburn, Crawfordsburn Inn		1928			North Down, Rathmore Shops		1933			North Down, Kilcooley Terminus	1855		2008		Bangor, Buscentre	1910	1940	2020	
Belfast City Centre, Europa Buscentre	—	1850	1930																																																						
Belfast City Centre, Albert Clock Queens Square	—	1852	1932																																																						
Belfast City Centre, Laganside Buscentre	1820	••••																																																							
Hollywood, Cedar Grove	1832	1905	1945																																																						
Hollywood, Health Centre	1845	1918	1958																																																						
Cultra, Ulster Folk & Transport Museum	1849	1922	<del>2002</del>																																																						
Crawfordsburn, Crawfordsburn Inn		1928																																																							
North Down, Rathmore Shops		1933																																																							
North Down, Kilcooley Terminus	1855		2008																																																						
Bangor, Buscentre	1910	1940	2020																																																						
<p>Colin gets on the bus at Europa Buscentre at 18:50.</p> <p>He travels to Crawfordsburn.</p> <p>How long does his journey last?</p>		<p>Claire is at Laganside and wants to go to the Ulster Folk &amp; Transport Museum. She needs to be there by 19:30.</p> <p>What time should she get on the bus?</p>																																																							
<p style="text-align: center; font-size: 24pt; color: blue;">38 minutes</p>		<p style="text-align: center; font-size: 24pt; color: blue;">18:20</p>																																																							

July 25	5-a-day	Foundation
<p>Matt thinks of two square numbers. They add together to give another square number.</p> <p>Write down two possible numbers Matt thought of</p>	$\begin{array}{r} 36 + 64 = 100 \\ \hline \end{array}$ $\begin{array}{r} 9 + 16 = 25 \text{ etc} \\ \hline \end{array}$	
<p>Write down a prime number larger than 50</p> <p style="text-align: center;">53    59 etc</p>		
 <p style="text-align: center;"><math>2 \div 1 = 2</math></p>	<p>What is the gradient of this line?</p> <p style="text-align: center;">2</p>	
	<p>Work out the area of the shape that is shaded</p> $\frac{1}{2}(10 \times 10) = 50$ $\frac{1}{2}(4 \times 4) = 8$ $42 \text{ cm}^2$ <hr/> <p>Work out the area of the shape that is unshaded</p> $8 + 25 + 25 = 58 \text{ cm}^2$	

July 25	5-a-day	Higher								
<p>The <math>n</math>th term of a sequence is <math>(n + 1)(n + 3)</math></p> <p>Work out the first three terms of the sequence.</p> <p>1<sup>st</sup>: <math>2 \times 4 = 8</math>                      2<sup>nd</sup>: <math>3 \times 5 = 15</math></p>	<p>3<sup>rd</sup>: <math>4 \times 6 = 24</math></p>									
 <p>Not drawn to scale</p> <p><math>a^2 + b^2 = c^2</math>  <math>a^2 + 10^2 = 14^2</math>  <math>a^2 = 14^2 - 10^2</math>  <math>a = 9.798</math></p>	<p>Calculate the perimeter.</p> <p>14                      10                      9.798  <hr/>                     33.798 cm</p>									
<p>Explain what is meant by a stratified sample.</p> <p>A sample taken that is representative of the population.                      i.e. proportions consistent</p>										
<table border="1" data-bbox="167 1344 774 1422"> <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 40 is selected by stratified sampling. How many "Admin" are selected?</p>	Teachers	Teaching Assistants	Admin	Other	94	16	41	29	<p><math>\frac{41}{180} \times 40</math>                      q.i                      9 (10)</p>	
Teachers	Teaching Assistants	Admin	Other							
94	16	41	29							
<p>w is inversely proportional to c squared.</p> <p>When <math>w = 100</math>, <math>c = 5</math>.</p> <p>Find w when <math>c = 4</math>.</p> <p><math>w \propto \frac{1}{c^2}</math>  <math>w = \frac{k}{c^2}</math></p>	<p><math>100 = \frac{k}{25}</math>  <math>2500 = k</math>  <math>w = \frac{2500}{c^2}</math></p> <p><math>w = \frac{2500}{4^2}</math>  <math>= 156.25</math></p>									