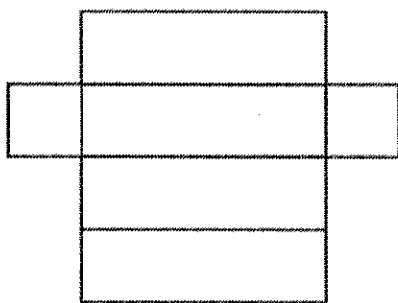
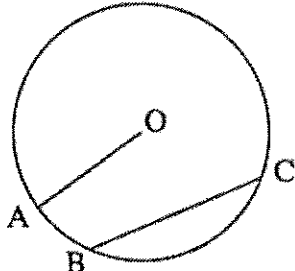
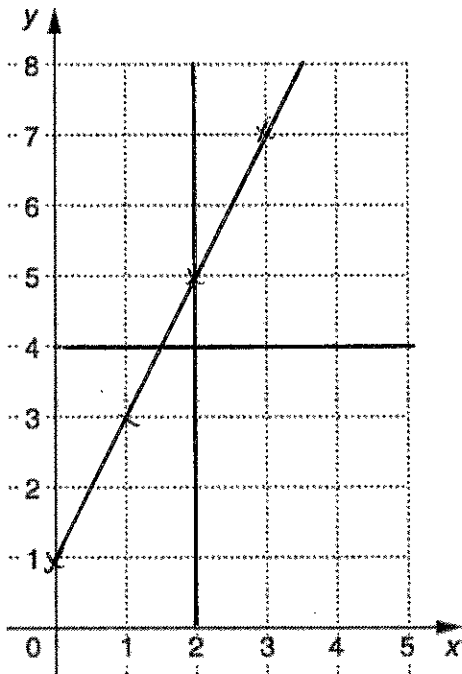
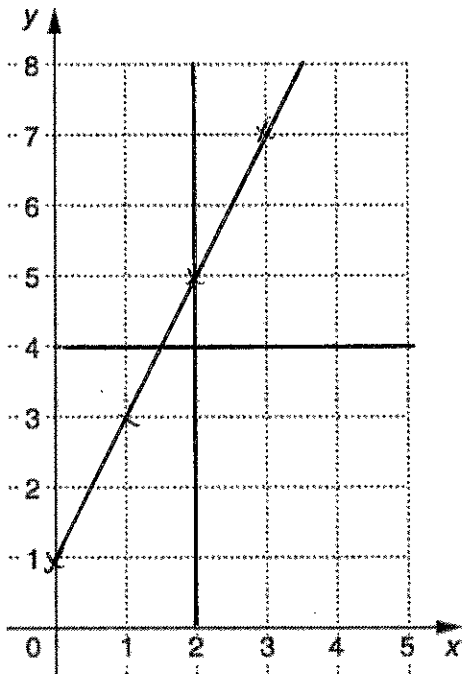


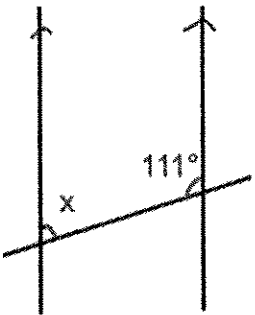
Name: \_\_\_\_\_

November 20th	5-a-day	Numeracy
<p>12 13 14 15 16 17 18</p> <p>From the list: Write down a prime number</p> <p>13 or 17</p>	<p>From the list: Write down a multiple of 8</p> <p>16</p>	
<p>From the list: the two numbers that have a sum of 34.</p> <p>16 and 18</p>		
<p>Weekly wage = basic wage + number of cars sold x bonus payment</p> <p>The basic wage is £250 and a bonus of £20 is paid for every car sold. Mike sold 9 cars. How much was his weekly wage?</p> <p><math>250 + 9 \times 20</math> <math>250 + 180 = £430</math></p>		
	<p>This is the net for which solid?</p> <p>A Cuboid</p>	
	<p>What is the name of the line OA?</p> <p>A radius</p> <p>What is the name of the line BC?</p> <p>A chord</p>	

Name: \_\_\_\_\_

November 20	5-a-day	Foundation																								
<p>As a product of primes,</p> $24 = 2 \times 2 \times 2 \times 3.$ <p>Write 48 as a product of primes</p> $2 \times 2 \times 2 \times 2 \times 3 \text{ or } 2^4 \times 3$	<p>Write 240 as a product of primes</p> $2 \times 2 \times 2 \times 3 \times 2 \times 5$ $2 \times 2 \times 2 \times 2 \times 3 \times 5$ $2^4 \times 3 \times 5$																									
<p>Draw <math>y = 2x + 1</math></p> <table border="1" style="margin-left: 20px;"> <tr> <td style="padding: 5px;"><math>x</math></td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">2</td> </tr> <tr> <td style="padding: 5px;"><math>y</math></td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">5</td> </tr> </table>	$x$	0	1	2	$y$	1	3	5																		
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<p>Draw <math>y = 4</math></p> <p>Draw <math>x = 2</math></p>																										
<p>Share £80 in the ratio 2:3</p> $2+3 = 5$ $80 \div 5 = \pounds 16$ $16 \times 2 = \pounds 32$ $16 \times 3 = \pounds 48$	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th><math>x</math></th> <th><math>x^3 - x</math></th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0</td> <td>too low</td> </tr> <tr> <td>2</td> <td>6</td> <td>too low</td> </tr> <tr> <td>3</td> <td>24</td> <td>too high</td> </tr> <tr> <td>2.2</td> <td>8.448</td> <td>too low</td> </tr> <tr> <td>2.5</td> <td>13.125</td> <td>too high</td> </tr> <tr> <td>2.4</td> <td>11.424</td> <td>too low</td> </tr> <tr> <td>2.45</td> <td>12.256</td> <td>too high</td> </tr> </tbody> </table> <div style="margin-left: 20px; margin-top: 10px;"> <p style="text-align: center;"> <math>\downarrow</math>                      <math>\uparrow</math>                      <math>\uparrow</math>  <math>\text{---} x \text{---}</math>  <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">2.4</span>      2.45      2.5         </p> </div>		$x$	$x^3 - x$	Comment	1	0	too low	2	6	too low	3	24	too high	2.2	8.448	too low	2.5	13.125	too high	2.4	11.424	too low	2.45	12.256	too high
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<p>Use trial and improvement to solve the equation</p> $x^3 - x = 12$ <p style="margin-left: 200px;"><math>2.4</math></p> <p>Give your answer to one decimal place.</p>	<p style="text-align: right; margin-right: 20px;"><u>2.4</u></p>																									

Name: \_\_\_\_\_

November 20	5-a-day	Higher
<p>What is the sum of the interior angles for a decagon?</p> $(n-2) \times 180$ $8 \times 180 = 1440^\circ$	<p>What is the size of each interior angle for a regular decagon?</p> $1440^\circ \div 10 = 144^\circ$	
 $\begin{array}{r} 180 \\ - 111 \\ \hline 69 \end{array}$	<p>Find the size of angle x.</p> $69^\circ$	
<p>Solve using simultaneous equations.</p> $5x + 3y = 41$ $2x + 3y = 20 \quad \text{subtract}$ <hr/> $3x = 21$ $x = 7$	$14 + 3y = 20$ $3y = 6$ $y = 2$ <p>check</p> $35 + 6 = 41 \checkmark$ $x = 7$ $y = 2$	
<p>Factorise <math>y^2 - 144</math></p> $(y-12)(y+12)$	<p>Calculate the surface area of the cylinder.</p> $2\pi r^2 + \pi dh$ $= 2 \times \pi \times 4^2 + \pi \times 8 \times 10$ $= 32\pi + 80\pi$ $= 112\pi \text{ cm}^2$ <p>or</p> $= 351.68 \text{ cm}^2$	
