
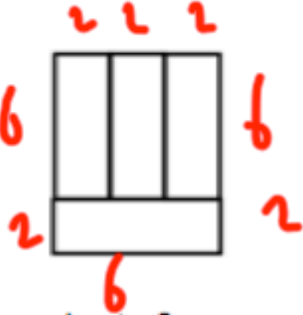
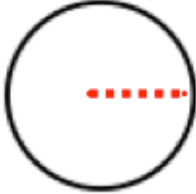



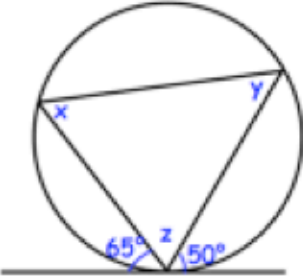
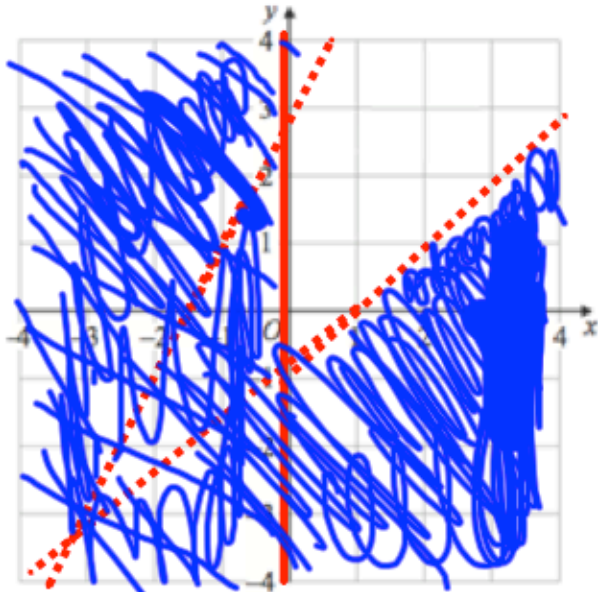


January 8th	5-a-day	Numeracy
What is 50% of 30? <p style="text-align: center; color: red; font-size: 2em;">15</p>	What is 25% of 24? <p style="text-align: center; color: red; font-size: 2em;">6</p>	
What is 10% of 70 <p style="text-align: center; color: red; font-size: 2em;">7</p>	What is 5% of 60? <p style="text-align: center; color: red; font-size: 2em;">3</p>	
<p style="text-align: center; color: blue;">6cm</p>  <p style="text-align: center; color: blue;">2cm</p> <p style="text-align: center; color: red; font-size: 2em;">28cm</p> <p>Four rectangles identical to the one above are arranged.</p>	 <p>What is the perimeter?</p>	
The temperature outside was 4°C this morning. It has fallen by 6°C. What is the temperature?	<p style="color: red; font-size: 2em;">-2°C</p>	
Write down the first 5 square numbers <p style="color: red; font-size: 1.5em;">1 4 9 16 25</p>		Write down the first 5 prime numbers <p style="color: red; font-size: 1.5em;">2 3 5 7 11</p>

January 8th	5-a-day	Foundation																					
 <p>Draw a radius</p>	 <p>Draw a segment</p>																						
<p>Simplify 25:35</p> <p>5:7</p>	<p>Share £40 in the ratio 2:3</p> <p>40 ÷ 5 = 8</p> <p>8 × 2 = £16</p> <p>8 × 3 = £24</p>																						
<p>Solve $x^2 + 2x = 104$</p> <p>to one decimal place, using trial and improvement</p>	<table border="1"> <thead> <tr> <th>x</th> <th>$x^2 + 2x$</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>99</td> <td>low</td> </tr> <tr> <td>10</td> <td>120</td> <td>high</td> </tr> <tr> <td>9.1</td> <td>101.1</td> <td>low</td> </tr> <tr> <td>9.2</td> <td>103.4</td> <td>low</td> </tr> <tr> <td>9.3</td> <td>105.9</td> <td>high</td> </tr> <tr> <td>9.25</td> <td>104.0625</td> <td>high</td> </tr> </tbody> </table>	x	$x^2 + 2x$	Comment	9	99	low	10	120	high	9.1	101.1	low	9.2	103.4	low	9.3	105.9	high	9.25	104.0625	high	
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<p>Answer..... 9.2</p>																							
<p>Write 36 as a product of primes.</p> <p>Give your answer in index form.</p> <p>2 × 2 × 3 × 3</p> <p>2² × 3²</p>	<p>36</p> 																						

January 8	5-a-day	Higher
<p>How long would it take someone to run 10km at 4 metres per second?</p> <p>10000 metres</p>		<p>$s \propto t$</p> <p>$t = 10000 \div 4$ $= 2500 \text{ seconds}$ or 41 mins 40 seconds</p>
		<p>Find x, y and z.</p> <p>$x = 50^\circ$ $y = 65^\circ$ $z = 65^\circ$</p>
		<p>Show the region which satisfies</p> <p>$x \geq 0$ $y < 2x + 3$ $y > x - 1$</p>
<p>A full water tank has sprung a leak. It loses 5% of its contents every minute.</p> <p>Work out how long until the tank loses 40% of its contents.</p>		<p>100×0.95^y</p> <p>$y = 9 \quad 100 \times 0.95^9 = 63.02\%$ $y = 10 \quad 100 \times 0.95^{10} = 59.87\%$</p> <p><u>10 minutes</u></p>