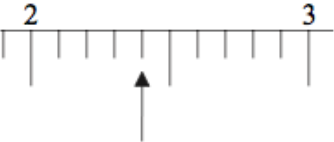
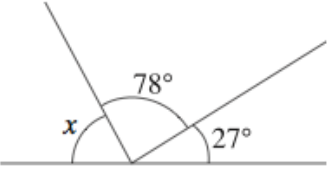
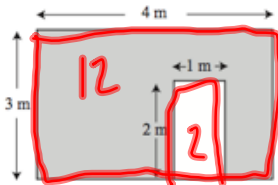
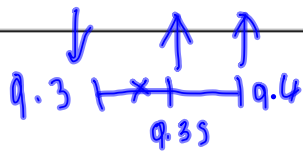
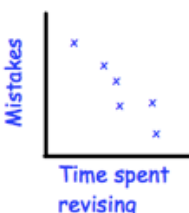


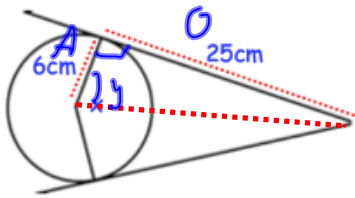
Name: _____

October 24th	5-a-day	Numeracy
	<p>What number is the arrow pointing to?</p> <p style="color: red; font-size: 1.5em;">2.4</p>	
<p>Write down all the factors of 44</p> <p style="color: red; font-size: 1.5em;">1 2 4 11 22 44</p>		
<p>55% students in a school are boys.</p> <p>What percentage are girls?</p> <p style="color: red; font-size: 1.5em;">45%</p>	<p>There are 300 students in the school.</p> <p style="color: red; font-size: 1.5em;">$150 + 15 = 165$</p> <p>How many boys are there?</p> <p style="color: red; font-size: 1.5em;">$50\% = 150$ $10\% = 30$ $5\% = 15$</p>	
<p>the cube root of 64</p> <p style="color: red; font-size: 1.5em;">$\sqrt[3]{64} = \underline{4}$</p>		
	<p>Find x</p> <p style="color: red; font-size: 1.5em;">78 $+ 27$ <hr/>105</p> <p style="color: blue; font-size: 1.5em;">180 $- 105$ <hr/>75</p>	

Name: _____

October 24	5-a-day	Foundation																					
<p>Calculate the shaded area</p> 	$12m^2 - 2m^2$ $10m^2$																						
<p>$x^2 + 2x = 106$ has a solution between 9 and 10.</p> <p>Find x to one decimal place.</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>too low</td> </tr> <tr> <td>10</td> <td>120</td> <td>too high</td> </tr> <tr> <td>9.5</td> <td>109.25</td> <td>too high</td> </tr> <tr> <td>9.4</td> <td>107.16</td> <td>too high</td> </tr> <tr> <td>9.3</td> <td>105.09</td> <td>too low</td> </tr> <tr> <td>9.35</td> <td>106.1225</td> <td>too high</td> </tr> </tbody> </table>		x	$x^2 + 2x$	Comment	9	99	too low	10	120	too high	9.5	109.25	too high	9.4	107.16	too high	9.3	105.09	too low	9.35	106.1225	too high
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 <p>Answer..... <u>9.3</u></p>																							
<p>A cylinder has diameter 10cm and height 20cm</p> <p>Work out its volume</p> <p>Area = $\pi \times 5^2$ (cross-section) $= 78.5398\dots$</p>	<p>Volume</p> 78.5398×20 $= 1570.8 \text{ cm}^3$																						
	<p>Describe the relationship shown</p> <p>The more time spent revising (on Corbettmaths.com), less mistakes are made... it is a negative correlation.</p>																						

Name: _____

October 24	5-a-day	Higher
<p>Expand and simplify</p> <p>$(9y - 7)(2y + 3)$</p> $18y^2 + 27y - 14y - 21$	$18y^2 + 18y - 21$	
<p>Simplify fully</p> <p>$\sqrt{6} \times \sqrt{2}$</p> $\frac{\sqrt{12}}{2\sqrt{3}}$	<p>Rationalise the denominator</p> $\frac{6}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = \frac{6\sqrt{3}}{3}$ $= 2\sqrt{3}$	
	<p>Shown is a circle, two tangents and two radii.</p> <p>Find the size of the angle marked x.</p> $\tan y = \frac{25}{6} \quad y = 76.5$ $x = 26.5 \times 2 = 53^\circ$	
<p>Solve the simultaneous equations</p> $y = x^2 + 3x - 2$ $2y = 2x^2 + 6x - 4$ $3x + 2y = 22$ $2y = 22 - 3x$	$2x^2 + 6x - 4 = 22 - 3x$ $2x^2 + 9x - 26 = 0$ $(2x + 13)(x - 2) = 0$ $x = -\frac{13}{2} \quad x = 2$	$6 + 2y = 22$ $2y = 16$ $y = 8$

$$-\frac{39}{2} + 2y = 22$$

$$2y = \frac{83}{2}$$

$$y = \frac{83}{4} \quad \left(-\frac{13}{2}, \frac{83}{4}\right) \quad (2, 8)$$