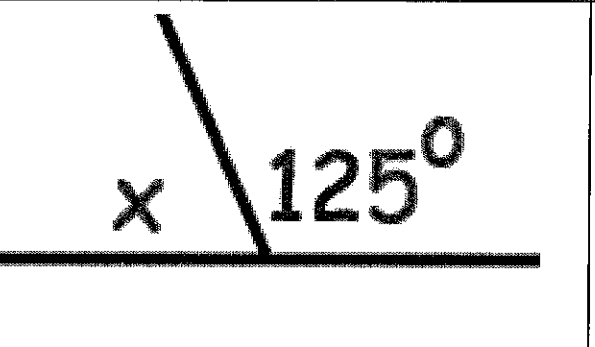
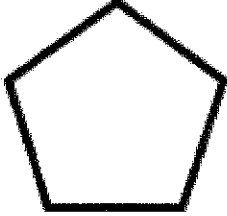
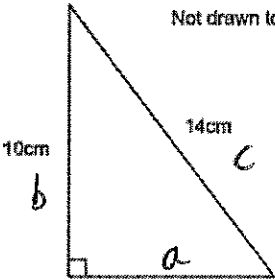


Name: _____

November 14th	5-a-day	Numeracy
What number is halfway between 30 and 90? 60	What number is halfway between 20 and 70? 45	
What is 20% of 60 12		
the cube root of 125 5		
If $x = 2$ Work out $5x$ 10	If $y = 6$ Work out $2y + 3$ 15	
 <p>x 125°</p>	Find x 55°	$\begin{array}{r} 180 \\ -125 \\ \hline 55 \end{array}$

Name: _____

November 14	5-a-day	Foundation
<p>Expand</p> <p>$2y(3y + 5)$</p>	$6y^2 + 10y$	
	<p>Shown is a regular pentagon.</p> <p>What is the size of each interior angle?</p> $540 \div 5 = 108^\circ$	
<p>Nicki has y pence. Ian has 4 pence less than Nicki.</p> <p>Write down, in terms of y, the number of pence Ian has.</p>	$y - 4$	
<p>Hollie has £600 that she wants to exchange into Euro.</p> <p>The exchange rate is £1 = €1.39</p> <p>The lowest note that the post office has is €20.</p>	<p>How many Euro can Hollie buy and how much will this cost her?</p> 820 euros $820 \div 1.39 = \text{£}589.93$	
<p>Calculate the area</p> $a^2 + b^2 = c^2$ $a^2 + 10^2 = 14^2$ $a^2 + 100 = 196$ $a^2 = 96$ $a = 9.7979... \rightarrow$	<p>Not drawn to scale</p>  $\text{Area} = \frac{1}{2} \times 9.79 \times 10$ $= 48.99 \text{ cm}^2$	

Name: _____

November 14	5-a-day	Higher																																				
<p>Factorise</p> $x^2 + 3x - 10$ $(x-2)(x+5)$	<p>Factorise</p> $x^2 - 3x - 4$ $(x-4)(x+1)$																																					
<p>Use trial and improvement to solve $5^x = 40$.</p> <p style="text-align: center;">2.3</p> <p>Give your answer to 1 decimal place.</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="text-align: center;">↓</td> <td style="text-align: center;">↓</td> <td style="text-align: center;">↑</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> <tr> <td style="text-align: center;">2.2</td> <td style="text-align: center;">2.25</td> <td style="text-align: center;">2.3</td> </tr> </table>	↓	↓	↑				2.2	2.25	2.3	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">x</th> <th style="text-align: center;">5^x</th> <th style="text-align: center;">Comment</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">1</td><td style="text-align: center;">5</td><td style="text-align: center;">too low</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">25</td><td style="text-align: center;">too low</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">125</td><td style="text-align: center;">too high</td></tr> <tr><td style="text-align: center;">2.5</td><td style="text-align: center;">55.9</td><td style="text-align: center;">too high</td></tr> <tr><td style="text-align: center;">2.4</td><td style="text-align: center;">47.6</td><td style="text-align: center;">too high</td></tr> <tr><td style="text-align: center;">2.3</td><td style="text-align: center;">40.5</td><td style="text-align: center;">too high</td></tr> <tr><td style="text-align: center;">2.2</td><td style="text-align: center;">34.5</td><td style="text-align: center;">too low</td></tr> <tr><td style="text-align: center;">2.25</td><td style="text-align: center;">37.4</td><td style="text-align: center;">too low</td></tr> </tbody> </table>	x	5^x	Comment	1	5	too low	2	25	too low	3	125	too high	2.5	55.9	too high	2.4	47.6	too high	2.3	40.5	too high	2.2	34.5	too low	2.25	37.4	too low	
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<p>Evaluate</p> 9^0																																						
<p>Rationalise the denominator of</p> $\frac{15}{\sqrt{5}} \times \frac{\sqrt{5}}{\sqrt{5}} = \frac{15\sqrt{5}}{5}$ $= 3\sqrt{5}$																																						
<p>Express as a single fraction.</p> $\frac{2}{x+1} + \frac{5}{2x+3}$	$\frac{2(2x+3) + 5(x+1)}{(x+1)(2x+3)}$ $\frac{4x+6+5x+5}{(x+1)(2x+3)} = \frac{9x+11}{(x+1)(2x+3)}$																																					