


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

September 27th	5-a-day	Numeracy
24 sweets are shared between 4 children.  How many will each child receive?		6
Which of the following is the most likely weight of a box of cereal?  0.5g 0.5kg 0.5m 0.5 tonnes		0.5kg
What fraction of this shape is shaded? 		$\frac{6}{12} = \frac{1}{2}$
James has 32 pens and puts them in bundles of 6.  How many pens does he have left over?		2
What is $\frac{3}{5}$ of 70?  $70 \div 5 = 14$ $14 \times 3 = 42$		What is $\frac{3}{5}$ of 18?  15

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

September 27	5-a-day	Foundation
<p>Solve <math>2x + 4 = 3x + 19</math></p> $4 = x + 19$ $-15 = x$		$x = -15$
<p>Solve <math>3(y - 2) &lt; 15</math></p> $3y - 6 < 15$ $3y < 21$		$y < 7$
<p>Blue, yellow and green sweets are in the ratio 1:2:5.</p> <p>If there are 56 sweets, how many are there of each colour?</p> $1+2+5 = 8$		$56 \div 8 = 7$ $7, 14, 35$
<p>Calculate the area of a circle with radius 4cm.</p> $\pi \times 4^2$		$50.265 \text{ cm}^2$
<p>Two cities are 4cm apart on a map whose scale is 1:5,000,000. Find the actual distance (in km) between the two cities.</p> $20,000,000 \text{ cm}$		$200 \text{ km}$

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

September 27	5-a-day	Higher								
<p>In May 2011, the population of a country was 32 million. By May 2012, the population had increased by 4%.</p> <p>Work out the population in May 2012.</p>	$33\,280\,000$									
<p>Explain what is meant by a stratified sample.</p>	<p><i>A sample in the population</i></p> <p><i>sample proportions</i></p>									
<table border="1" data-bbox="228 926 609 982"> <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 30 is selected by stratified sampling. How many "Other" are selected?</p>	Teachers	Teaching Assistants	Admin	Other	94	16	41	29	$\frac{29}{180} \times 30$ $4.8 \rightarrow \underline{5}$	
Teachers	Teaching Assistants	Admin	Other							
94	16	41	29							
<p>A is directly proportional to the square root of B.</p> <p>When <math>A = 120</math>, <math>B = 4</math>.</p> <p>Find A in terms of B.</p>	$A \propto B^2$ $A = k \times B^2$ $120 = k \times 4^2$ $120 = k \times 16$ $A = 7.5$ $A = 7.5 B^2$									
<p>Prove <math>(2n + 2)^2 - (2n + 2)</math> is always even.</p>	$(2n+2)(2n+2) - (2n+2)$ $4n^2 + 8n + 4 - (2n+2)$ $4n^2 + 6n + 2$ $2(2n^2 + 3n + 1)$ <p><math>\therefore</math> even.</p>									