

# Reigate Grammar School



## 11+ Entrance Examination January 2012

### MATHEMATICS

Time allowed: 45 minutes

NAME.....

- Work through the paper carefully
- **You do not have to finish everything**
- Do not spend too much time on any single question
- Show any working in the spaces provided
- Use the blank left hand pages for rough work

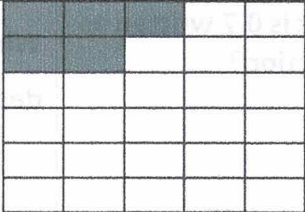
PAGE	1	2	3	4	5	6	7	TOTAL
MARK	18	24	18	8	14	8	10	100
MARK								

ANSWER ALL QUESTIONS IN THE SPACES PROVIDED, SHOWING ANY NECESSARY WORKINGS

2002 + 999 =	2002 – 999 =	What is 2002 x 10?	DO NOT WRITE IN THIS BOX  1 1 1
Use your previous answer to write down 2002 x 5	Use these last two answers to write down 2002 x 15	Use your previous answer to write down 20.02 x 1.5	1 1 1
20.02 + 0.07 =	20.02 + 0.7 =	20.02 + 7 =	1 1 1
Given that 35 x 17 = 595  What is 595 ÷ 17 ?  What is 59500 ÷ 17?  What is (595 + 595 + 595) ÷ 17?	What is 600 x 12 ?  What is 600 x 1.2?  What is 600 x 0.12?	What is 8000 ÷ 100?  What is 8000 ÷ 400?  What is 8000 ÷ 50?	1 1 1  1 1 1  1 1 1



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## PAGE 2

<p>Which of these three is the largest and which is the smallest?</p> <p>70%   0.65   <math>\frac{4}{5}</math></p> <p>Largest =</p> <p>Smallest =</p>	<p>What is 10% of £600?</p> <p>What is 5% of £600?</p> <p>What is <math>2\frac{1}{2}\%</math> of £600?</p> <p>Use your answers to find <math>17\frac{1}{2}\%</math> of £600</p>	<p>Find one ninth of 360</p> <p>Use your answer to find four ninths of 360</p>	<p>DO NOT WRITE IN THIS BOX</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
<p>Add together</p> <p><math>\frac{1}{4}</math> of 24</p> <p><math>\frac{2}{5}</math> of 30</p> <p>and <math>\frac{1}{3}</math> of 15</p>	<p>Richard is 12 years old.</p> <p>Adam is twice as old as Richard.</p> <p>Will is <math>\frac{2}{3}</math> of Adam's age.</p> <p>What is their total age?</p>	<p>Write down a decimal between 75% and 80%</p> <p>Write down a fraction between 60% and 70%</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
<p>What are the next two numbers in these sequences</p> <p>1, 4, 8, 13, 19,.....</p> <p>.....and.....</p> <p>1, 1, 2, 3, 5, 8,.....</p>	<p>Put these decimals in order, starting with the largest.</p> <p>0.101, 0.011, 0.11</p>	 <p>What fraction of this flag is shaded?</p> <p>How many more rectangles need to be</p>	<p>2</p> <p>2</p> <p>1</p> <p>1</p> <p>1</p>

.....and.....		shaded to fill $\frac{2}{3}$ of the flag?	
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PAGE 3

<p>Work out</p> $\frac{1}{3} + \frac{5}{12}$	<p>Work out</p> $\frac{7}{15} - \frac{2}{5}$	<p>Add together the following, giving your answer as a DECIMAL</p> <p>65%, 0.507 and <math>\frac{1}{4}</math></p>	<p>DO NOT WRITE IN THIS BOX</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
<p>What is the biggest number that divides exactly into 60, 72 and 84?</p>	<p>What is the smallest number that 2, 3, and 8 all divide into?</p>	<p>Find two numbers that have a difference of 5 and add up to 19</p> <p>.....and.....</p>	<p>1</p> <p>1</p> <p>1</p>
<p>What is 0.7 written as a fraction?</p> <p>What is 0.07 written as a fraction?</p> <p>What is 0.707 written as a fraction?</p>	<p>What is <math>\frac{1}{5}</math> written as a decimal?</p> <p>What is <math>\frac{1}{50}</math> written as a decimal?</p> <p>What is <math>\frac{3}{50}</math> written as a decimal?</p>	<p>Name the shapes below</p>  	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>

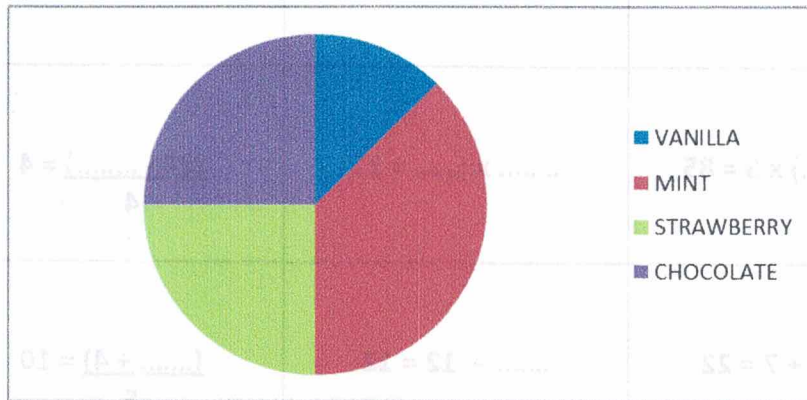


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# PAGE 4

An ice cream company recently carried out a survey on 120 people to see which of their flavours were most popular. The results are shown in the pie chart below.

DO  
NOT  
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IN  
THIS  
BOX



How many people liked each flavour?

VANILLA =.....

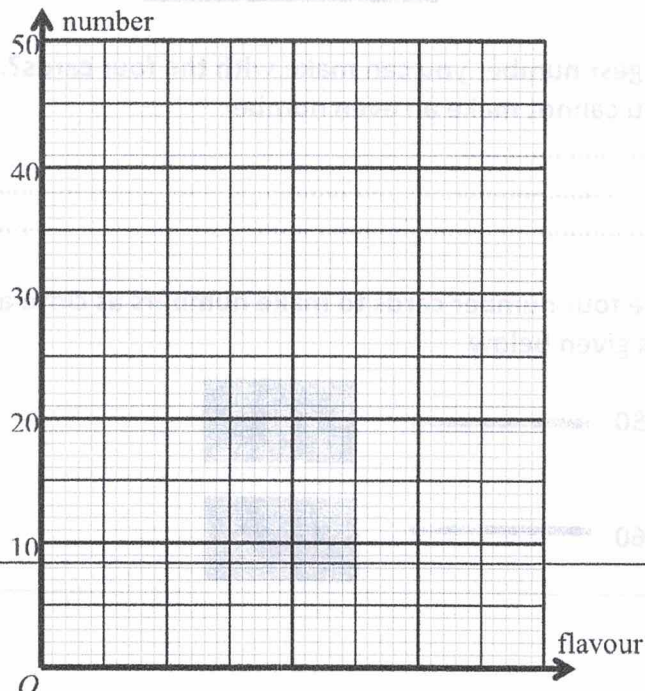
MINT =.....

STRAWBERRY =.....

CHOCOLATE =.....

1  
1  
1  
1

Draw a bar chart to represent these results.



1  
1  
1  
1

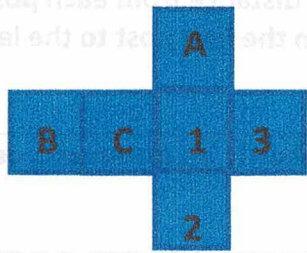
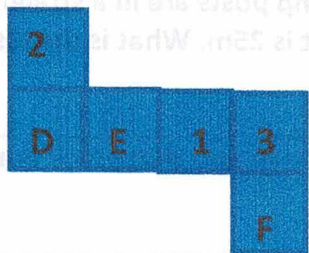
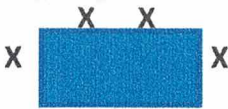
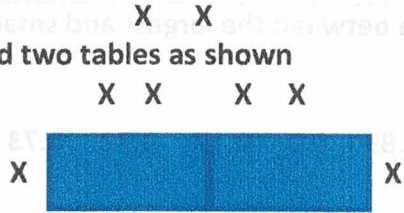
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PAGE 5

What are the missing numbers in the sums shown below?

$18 - \dots = 13$	$\dots - 29 = 56$	$560 \div \dots = 14$	DO NOT WRITE IN THIS BOX 3
$(8 + \dots) \times 5 = 85$	$\dots \times \dots = 21$	$\frac{(24 - \dots)}{4} = 4$	3
$3 \times \dots + 7 = 22$	$\dots \div 12 = 12$	$\frac{(\dots + 4)}{5} = 10$	3
<p>Here are some number cards</p> <div> <div>1</div> <div>7</div> <div>3</div> <div>5</div> </div> <p>You can use each card once to make the number 1735 like this</p> <div> <div>1</div> <div>7</div> <div>3</div> <div>5</div> </div> <p>What is the biggest number you can make with the four cards?.....</p> <p>Explain why you cannot make an even number</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Use some of the four number cards to make numbers as close as possible to the numbers given below</p> <div> <div>50</div> <div>→</div> <div> <div></div> <div></div> </div> </div> <div> <div>60</div> <div>→</div> <div> <div></div> <div></div> </div> </div>			1 1 1 1

1	4000 $\longrightarrow$ 	1
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<p>These shapes can be folded to form cubical dice</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>		<p>DO NOT WRITE IN THIS BOX</p>
<p>Opposite faces of a dice always add up to 7.</p> <p>What are the values of</p> <div style="display: flex; justify-content: space-between;"> <div> <p>A.....</p> <p>B.....</p> <p>C.....</p> <p>D.....</p> <p>E.....</p> <p>F.....</p> </div> <div style="text-align: right;"> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> </div> </div>		
<p>Six people can sit around a table as shown</p> <div style="text-align: center;">  </div> <p>Ten people can sit around two tables as shown</p> <div style="text-align: center;">  </div>		<p>1</p>

How many people can sit around three tables in the same way?.....	1
How many people can sit around ten tables in the same way?.....	

# PAGE 7

Four lamp posts are in a straight line. The distance from each post to the next is 25m. What is the distance from the first post to the last?	DO NOT WRITE IN THIS BOX 1
What is two and thirty four hundredths when it is written as a decimal?	1
What is half of 999?	1
Which of these numbers is NOT a multiple of 3? 12   234   3456   45678   567890	1
What does $2 \times 17 + 3 \times 17 + 5 \times 17 = ?$	1
Mary has three brothers and four sisters. If they, and Mary, all buy each other an Easter egg, how many eggs will be bought?	1
A transport company's vans each carry a maximum load of 12 tonnes. A firm needs to deliver 24 crates each weighing 5 tonnes. How many vans are needed?	1
What is the difference between the largest and smallest of these numbers  0.89   0.9   0.17   0.72   0.73	1
Three quarters of a local tennis club are girls. There are 20 boys in the club. How many girls are there?	1



