

# Reigate Grammar School



## 13+ Entrance Examination November 2013

### MATHEMATICS

*Non-calculator*

Time allowed: 20 minutes

NAME.....

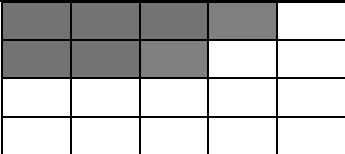
- Work through the paper carefully
- **You do not have to finish everything**
- You may NOT use a calculator
- Do not spend too much time on any single question
- Show any working in the spaces provided
- Use the blank left hand pages for rough work


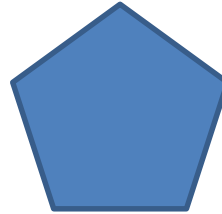
PAGE	1	2	3	TOTAL
MARK	18	24	18	60
MARK				

**PAGE 1**  
**ANSWER ALL QUESTIONS IN THE SPACES PROVIDED, SHOWING ANY  
 NECESSARY WORKINGS**

<b>2013 + 598 =</b>	<b>2013 – 598 =</b>	<b>What is 2013 x 10?</b>	DO NOT WRITE IN THIS BOX    <b>1</b> <b>1</b> <b>1</b>
<b>Use your previous answer to write down 2013 x 5</b>	<b>Use these last two answers to write down 2013 x 35</b>	<b>Use your previous answer to write down 201.3 x 3.5</b>	<b>1</b>       <b>1</b>       <b>1</b>
<b>2013 - 7 =</b>	<b>2013 - 70 =</b>	<b>2013 - 700 =</b>	       <b>1</b>       <b>1</b>       <b>1</b>
<b>Given that 22 x 31 = 682</b>       <b>What is 682 ÷ 11 ?</b>       <b>What is 68200 ÷ 31?</b>       <b>What is (682+682+682) ÷ 22?</b>	<b>What is 800 x 14 ?</b>       <b>What is 800 x 1.4?</b>       <b>What is 80 x 0.14?</b>	<b>What is 7000 ÷ 100?</b>       <b>What is 7000 ÷ 200?</b>       <b>What is 7000 ÷ 25?</b>	<b>1</b> <b>1</b> <b>1</b>     <b>1</b> <b>1</b> <b>1</b>     <b>1</b> <b>1</b> <b>1</b>

**PAGE 2**

<p><b>Which of these three is the largest and which is the smallest?</b></p> <p align="center"><b>9%   0.07   <math>\frac{1}{12}</math></b></p> <p><b>Largest =</b></p> <p><b>Smallest =</b></p>	<p><b>What is 10% of £300?</b></p> <p><b>What is 5% of £300?</b></p> <p><b>What is <math>2\frac{1}{2}\%</math> of £300?</b></p> <p><b>Use your answers to find <math>17\frac{1}{2}\%</math> of £300</b></p>	<p><b>Find one sixth of 5400</b></p> <p><b>Use your answer to find five sixths of 5400</b></p>	<p><b>DO NOT WRITE IN THIS BOX</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p>
<p><b>Add together</b></p> <p align="center"><b><math>\frac{1}{3}</math> of 24</b></p> <p align="center"><b><math>\frac{2}{5}</math> of 40</b></p> <p><b>and   <math>\frac{1}{2}</math> of 11</b></p>	<p><b>Albert is 16 years old.</b></p> <p><b>Cuthbert is three times as old as Albert.</b></p> <p><b>Egbert is <math>\frac{1}{6}</math> of Cuthbert's age.</b></p> <p><b>What is their total age?</b></p>	<p><b>Write down a decimal between 23% and 24%</b></p> <p><b>Write down a fraction between 3% and 5%</b></p>	<p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p>
<p><b>What are the next two numbers in these series</b></p> <p><b>576, 288, 144, 72, .....</b></p> <p align="center"><b>and</b></p> <p><b>2, 5, 7, 12, 19, 31,.....</b></p> <p align="center"><b>and</b></p>	<p><b>Put these decimals in order, starting with the largest.</b></p> <p align="center"><b>0.5, 0.056, 0.48</b></p>	 <p><b>What fraction of this flag is shaded?</b></p> <p><b>How many more rectangles need to be shaded to fill <math>\frac{2}{3}</math> of the flag?</b></p>	<p align="center"><b>2</b></p> <p align="center"><b>2</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p> <p align="center"><b>1</b></p>

<p>Work out</p> $\frac{1}{4} + \frac{5}{12}$	<p>Work out</p> $\frac{9}{10} - \frac{2}{5}$	<p>Add together the following, giving your answer as a DECIMAL</p> <p>78%, 0.507 and <math>\frac{1}{4}</math></p>	<p>DO NOT WRITE IN THIS BOX</p> <p>1 1  1 1  1 1 1</p>
<p>What is the biggest number that divides exactly into 35, 49 and 63?</p>	<p>What is the smallest number that 6, 8, and 10 all divide into?</p>	<p>Find two numbers that have a difference of 13 and add up to 21</p>	<p>1  1  1</p>
<p>What is 0.27 written as a fraction?</p> <p>What is 0.0027 written as a fraction?</p> <p>What is 0.2727 written as a fraction?</p>	<p>What is <math>\frac{1}{5}</math> written as a decimal?</p> <p>What is <math>\frac{1}{5000}</math> written as a decimal?</p> <p>What is <math>\frac{13}{5000}</math> written as a decimal?</p>	<p>Name the shapes below</p>  	<p>1 1 1  1 1 1  1 1</p>