

REIGATE GRAMMAR SCHOOL

13+ Entrance Examination 2018 MATHEMATICS

Paper I

Non-Calculator Paper

Time Allowed: 30 minutes

Name:

- Calculators are **NOT** allowed.
- Work through the paper carefully.
- Do not spend too much time on any single question.
- Show any working clearly in the spaces provided – marks may be lost if there is not enough working.
- **You do not have to finish everything.**

Total Marks Available = 40

Page	2	3	4	5	6	Total
Marks						
Out of	7	10	8	9	6	40

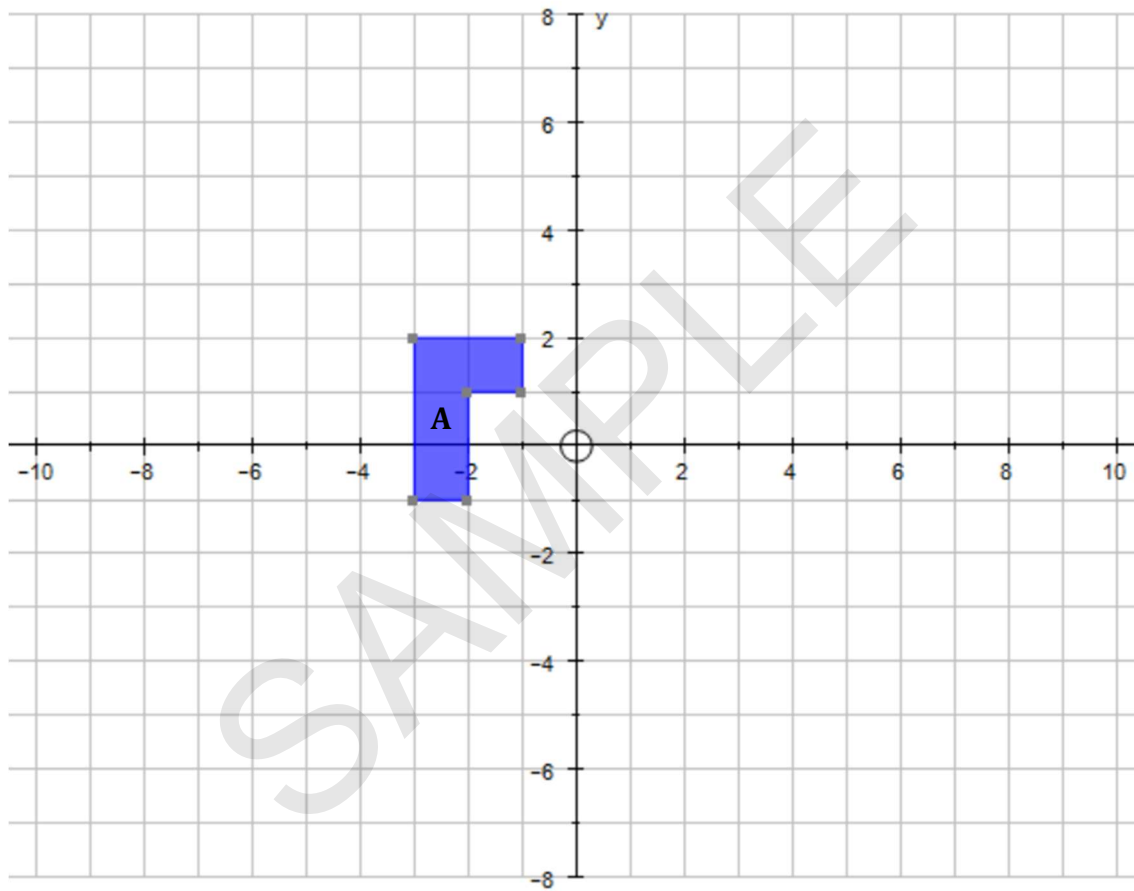
1.	<p>Complete the following table, leaving your answers in their simplest form:</p> <table border="1" data-bbox="228 309 1331 759"> <thead> <tr> <th data-bbox="228 309 595 353">Fraction</th> <th data-bbox="595 309 963 353">Decimal</th> <th data-bbox="963 309 1331 353">Percentage</th> </tr> </thead> <tbody> <tr> <td data-bbox="228 353 595 477"></td> <td data-bbox="595 353 963 477">0.24</td> <td data-bbox="963 353 1331 477"></td> </tr> <tr> <td data-bbox="228 477 595 600"></td> <td data-bbox="595 477 963 600"></td> <td data-bbox="963 477 1331 600">65%</td> </tr> <tr> <td data-bbox="228 600 595 759">$\frac{21}{25}$</td> <td data-bbox="595 600 963 759"></td> <td data-bbox="963 600 1331 759"></td> </tr> </tbody> </table>	Fraction	Decimal	Percentage		0.24				65%	$\frac{21}{25}$			[3]
Fraction	Decimal	Percentage												
	0.24													
		65%												
$\frac{21}{25}$														
2.	<p>What is the value of:</p> $\frac{(2^3 + 4)^2}{\sqrt{4^2 - 7}}$ <p>.....</p>	[2]												
3.	<p>It is given that $63 \times 244 = 15372$ What are the results of the following?</p> <p>(a) $15372 \div 63$</p> <p>.....</p> <p>(b) $15372 \div 122$</p> <p>.....</p>	<p>[1]</p> <p>[1]</p>												

11.	<p>What fraction is half way between $\frac{1}{7}$ and $\frac{1}{9}$?</p> <p>.....</p>	[2]
12.	<p>Work out the following, making sure to show all of your steps and giving your answer in it's simplest form.</p> <p>(a) $2\frac{2}{3} - 1\frac{5}{7}$</p> <p>.....</p> <p>(b) $2\frac{1}{4} \div \frac{5}{8}$</p> <p>.....</p>	[3] [3]
13.	<p>What number could replace ■ so that the value of $\frac{\blacksquare}{6}$ lies between 3 and 4?</p> <p>.....</p>	[1]

14. The angles in a triangle are in the ratio of 1 : 3 : 5
Find the size of the largest angle.

..... [3]

15.



(a) Translate shape **A** by the vector $\begin{pmatrix} -4 \\ 2 \end{pmatrix}$ and label this shape **B**.

[1]

(b) Reflect shape **A** in the line $y = x$ and label this shape **C**.

[2]

END OF TEST