

	Centre Number			
	Ca	ndida	te Nu	mber

General Certificate of Secondary Education 2017

Mathematics

Unit T5 Paper 1 (Non-calculator)
Foundation Tier





[GMT51] FRIDAY 2 JUNE, 9.15am–10.15am *GMT51*

TIME

1 hour.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

You must answer the questions in the spaces provided.

Do not write outside the boxed area on each page, on blank pages or tracing paper.

Complete in black ink only. Do not write with a gel pen.

Answer all sixteen questions.

All working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

You **must not** use a calculator for this paper.

INFORMATION FOR CANDIDATES

The total mark for this paper is 50.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Functional Elements will be assessed in this paper.

Quality of written communication will be assessed in Question 2.

You should have a ruler, compasses and a protractor.

The Formula Sheet is on page 2.

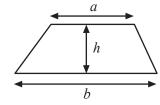


Formula Sheet

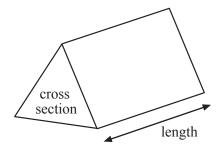
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Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of prism = area of cross section \times length





1	(a) Estimate the total weight of 69 pies weighing 102 g ea	ch.
	Answer	g [1]
	(b) Estimate the greatest number of pencils costing 39p ea with £20	ach that can be bought
	An	swer[2]
Qu	uality of written communication will be assessed in this qu	iestion.
2	Gareth borrows £300 He pays back £300 plus 25%	
	Jemma borrows £300 She pays back £55 each month for fi payment of £110	ive months and one final
	Who pays more and how much more?	
	Answer pay	s £more [5] [Turn over
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3	From a list of all	the people livi	ng in Northern Ireland	one is taken at random.
9	I TOITI a fist of all	the people myr	ing in rivoruncin incland.	one is taken at random.

Impossible Very Unlikely Unlikely Evens Likely Very Likely Certain

From the list of words given, write the most appropriate to describe the chance of the person

(a) having a birthday in summer,

Answer [1]

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(b) being more than 140 years old,

Answer [1]

(c) being you (give a reason for your answer).

Answer ______ because _____[1]

4

Shape	Square	Rhombus	Parallelogram	Rectangle
Number of lines of symmetry	4	4	2	2
Order of rotational symmetry	4	2	2	4

There are some mistakes in the table above. Circle each wrong number and write the correct number beside it. [3]



(b) a volume of twenty litres, Answer[1] (c) a length of a few centimetres? Answer[1] 6 Calculate (a) 3 + 2 × 10 Answer[1] (b) 12 - 4 ÷ 2 Answer[1]	5	Which imperial unit would be used to measure		
Answer[1] (c) a length of a few centimetres? Answer[1] 6 Calculate (a) 3+2×10 Answer[1] (b) 12-4÷2 Answer[1]		(a) a depth of several metres,	Answer	[1]
Answer[1] 6 Calculate (a) 3 + 2 × 10 Answer[1] (b) 12 - 4 ÷ 2 Answer[1]		(b) a volume of twenty litres,	Answer	[1]
(a) 3 + 2 × 10 Answer[1] (b) 12 - 4 ÷ 2 Answer[1]		(c) a length of a few centimetres?	Answer	[1]
Answer[1] (b) 12-4÷2 Answer[1]	6	Calculate		
(b) 12 – 4 ÷ 2 Answer[1] [Turn over		(a) $3 + 2 \times 10$		
Answer[1]			Answer	[1]
[Turn over		(b) $12-4 \div 2$		
			Answer	[1]
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X	A 7	4	=	+ –		
Use any	of the letter	rs, numbe	ers and	symbols abo	ve to write	
(a) an e	quation,					
				Ans	swer	[
(b) an ea	xpression,					
				Ans	swer	[
(c) a for	rmula.					
				Ans	swer	[

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8	(a)		
	Add on	ne square so that the new shape has one line of symmetry.	[1]
	(b)		
	Add on	ne square so that the new shape has rotational symmetry of order 2	[1]
	(c) Shape	A is enlarged to give shape B.	
		s the scale factor of the enlargement?	
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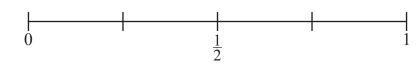


9 (a) A probability scale goes from 0 to 1

What does the number 1 tell you about the chance of an event happening?

_____[1]

(b) Mark with an arrow and the letter P, the probability of having a birthday on 32nd January.



[1]

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(c) 300 tickets are sold in a school raffle.

Only boys and girls buy tickets.

Explain why the probability of a boy winning may not be $\frac{1}{2}$

[1]



10 (a) Jill is playing a game of "Make it".

She must use the single digits 2, 3, 4 and 5, once each in any order.

She can use any of +, -, \times , \div , brackets.

She must make the answer 10

Show how this can be done.

Answer [2]

(b) When c = -5 and d = 4 evaluate $c^2 - \sqrt{d}$

Answer _____ [2]

[Turn over

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11 The table shows information about all pupils in a Year 12 class.

	Boys	Girls
Blue Eyes	4	6
Brown Eyes	10	8

(a) How many pupils are there in the class?

Answer _____[1]

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(b) A pupil is to be chosen at random.

What is the probability that the pupil will have blue eyes?

Answer [1]

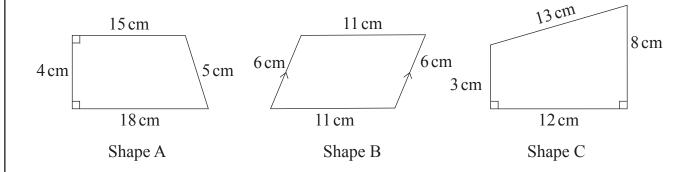
(c) A pupil was chosen. It was a boy.

What is the probability that he had brown eyes?

Answer _____[2]



12 Explain why two of the shapes below have an area of 66 cm² while the other shape does not.



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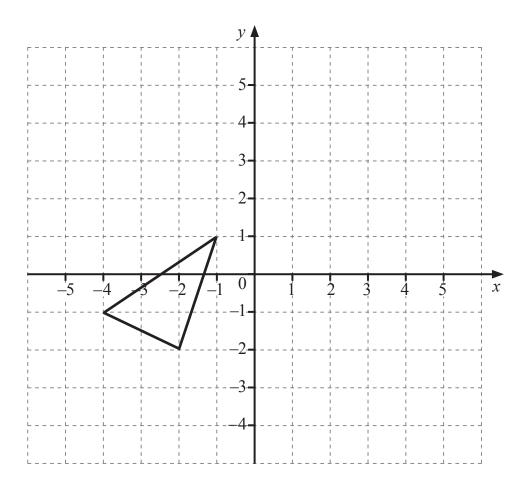
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[4]

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13



Draw the image of the triangle after a rotation of 90° anticlockwise about the point (-1, 3).

14 John and Mark share an amount of money in the ratio 5 : 6

Mark's share is £48

What was the total amount shared?

Answer £_____[2]

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15 The length of a rectangle is 3 times its width.

The width is wcm.



(a) Write down a formula for the area A of the rectangle in terms of w.

Answer _____[1]

(b) The area of the rectangle is 48 cm²

Calculate the width of the rectangle.

Answer _____ cm [2]

16 Complete the boxes

$$\frac{2xy}{3y} \times \frac{\boxed{}}{\boxed{}} = \frac{4xy^2}{9xy}$$

[2]

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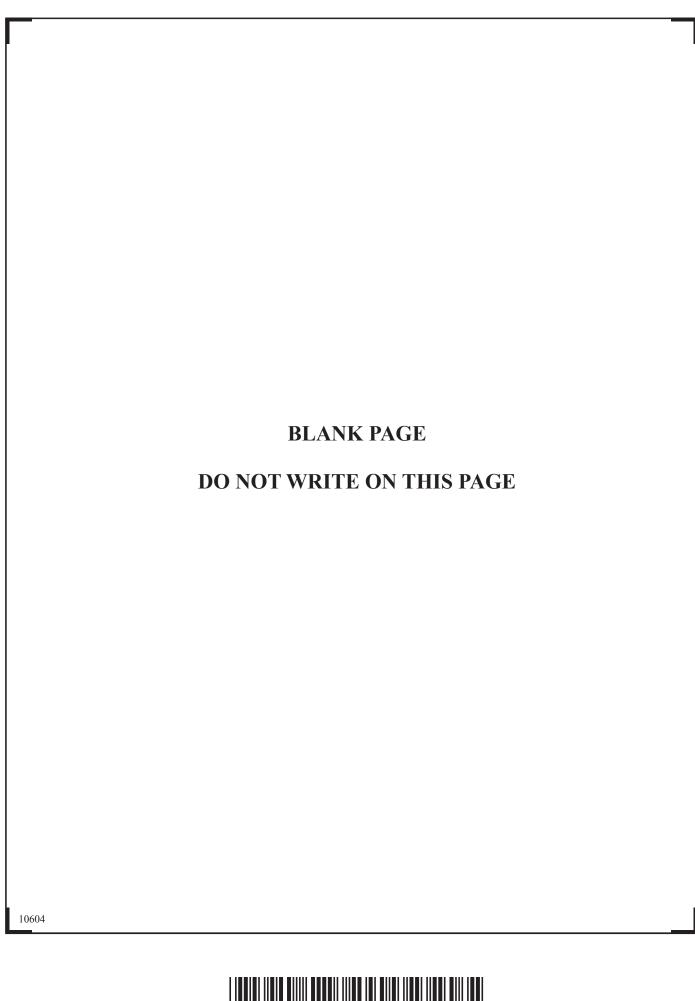
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Question Number	Marks			
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Total Marks

Examiner Number

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