

General Certificate of Secondary Education 2011

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Mathematics



Module N5 Paper 2 (With calculator) **Foundation Tier**

[GMN52]

MONDAY 6 JUNE $2.45 \, \text{pm} - 3.45 \, \text{pm}$



TIME

1 hour.

INSTRUCTIONS TO CANDIDATES

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

Write your answers in the spaces provided in this question paper. Answer all fifteen questions.

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

INFORMATION FOR CANDIDATES

The total mark for this paper is 56.

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

You should have a calculator, ruler, compasses, set-square and protractor. The Formula Sheet is on page 2.

use only						
Question Number	Marks					
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

For Examiner's

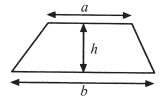
Total	
Marks	

6394 **Examiner Number**

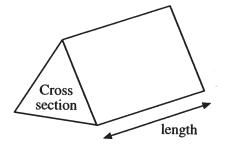


Formula Sheet

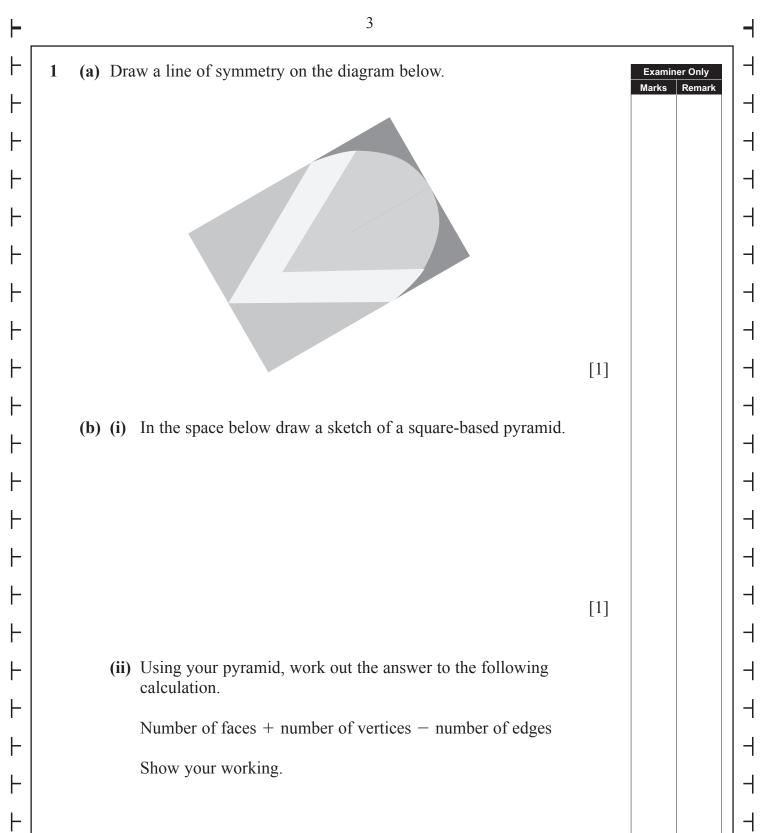
Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of prism = area of cross section \times length







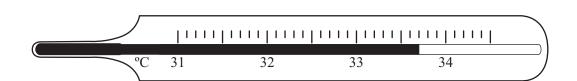
Answer _____ [2]

Total Question 1

Turn over

 \dashv

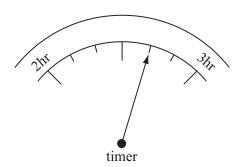
2 (a) Write down the temperature shown on the thermometer.



Answer _____ °C [1]

Examiner Only

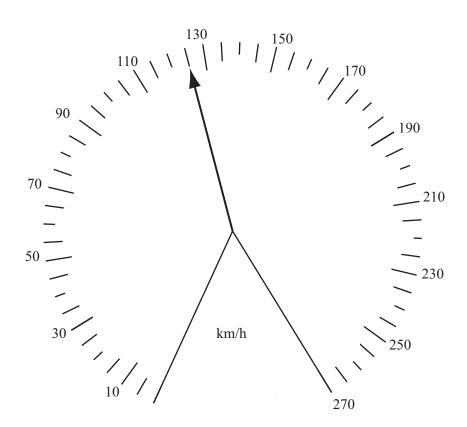
(b) Write down the reading from the timer.



Answer ____ hrs ____ mins [1]



(c) The speedometer below shows the speed in km/h.



(i) What speed is shown?

Answer _____km/h [1]

(ii) On the speedometer draw an arrow to show a speed of 158 km/h.

(iii) What is the difference between the speed in (i) and the speed in (ii)?

Answer	km/h	Γ1

Total Question 2

[Turn over

Examiner Only



3	The Print Pot advertise printing costs as Examiner Only Marks Remark
	$Cost (pence) = 35 \times colour \ prints + 10 \times black \ and \ white \ prints$
	(a) Gemma gets 3 colour prints and 2 black and white prints.
	Work out the cost in pounds (£).
	Answer £ [2]
	(b) The Fast Print advertise their printing costs as
	$Cost (pence) = 30 \times number of prints + 90$
	How much would Gemma have paid in The Fast Print?
	Answer £ [2] Total Question 3
4	The following temperatures were recorded in °C over a period of time
	12, -2, 7, -9, 13, -14, 6, -10
	From the list write down
	(a) the warmest temperature, Answer°C [1]
	(b) the coldest temperature. Answer°C [1]
	Total Question 4
620	



5 Land area can be measu	red in hecta	ares or in a	cres.			Examiner Only
The conversion graph s	hows how to	o convert l	oetween hec	tares and ac	eres.	Marks Remark
300						
250						
200						
250 -						
100						
50						
30 -						
0 20	40	60	80	100	120	
		Hectares				
(a) How many hectares	s are in 220	acres?				
			Answer	hecta	res [1]	
(1) W 1 1 1		1.50.1				
(b) Work out the numb	er of acres 1	in 150 heci	tares.			
			Answer	ac	eres [1]	
(a) Complete the sente	noo					T. 110
(c) Complete the sente			41 1 (F17	Total Question 5
An acre is	tim	es greater	ınan a necta	ire.	[1]	[Turn over



6	The	cninner	helow	10 2	regular	octagon.	It can	land	on any	name
U	1116	Spinner	DEIOW	18 a	regulai	octagon.	It Call	Tanu	on any	/ Hallie

John	
Lisa	7
Andy Fred	
Fred John Lisa	J

/ \	TT 71 ' 1		. 1	•		1 1 1		1 1	
(9)	M/h_1ch	name 19	the	spinner	magt	likel	\mathbf{v} to	land	On'
(a)	* * 111C11	manne is	o unc	Spinner	most	IIIXCI	y w	Iana	OII:

Answer [1]

(b) Which two names is the spinner equally likely to land on?

Answer ______ , ____ [1]

(c) Write down a name which the spinner cannot land on.

Answer _____ [1]

(d) Is the spinner more likely to land on a boy's or girl's name?

Answer _____ [1]

(e) The spinner is spun 200 times. How many times would you expect it to land on the name Lisa?

Answer _____ [2]

Total Question 6



7	AHJNPSWX		xaminer Only Irks Remark
	(a) Write down the two letters from above which have exactly one line of symmetry.	of	
	Answer ,	[1]	
	(b) Write down the two letters from above which have rotational symmetry of order 2 and two lines of symmetry.		
	Answer ,	[2]	
	(c) Write down the two letters from above which have rotational symmetry of order 2 and no lines of symmetry.		
	Answer,	[2] Tot	al Question 7
8	Put brackets in the following statements to make them true		
	(a) $5 \times 4 + 3 - 2 = 33$	[1]	
	(b) $9 - 3 \times 2 + 7 = 54$	[1]	
		Tot	al Question 8
6394		[7	Turn over

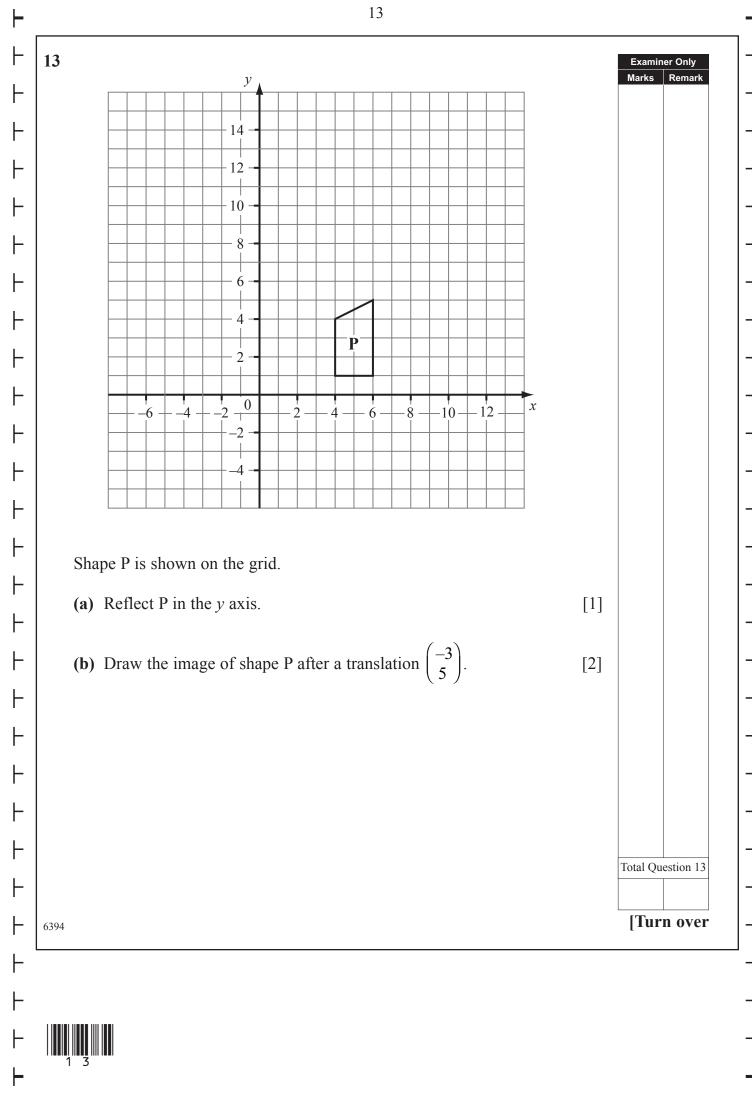


9	800	tickets numbered 1 to 800 are sold for a raffle.		Examine Marks	er Only Remark
	(a)	What is the probability that the winning ticket has a number greate than 550?	r		
		Answer	[2]		
	(b)	The probability that a male has the winning ticket may not be $\frac{1}{2}$. Explain why.			
		Answer			
				T + 10	
				Total Qu	estion 9



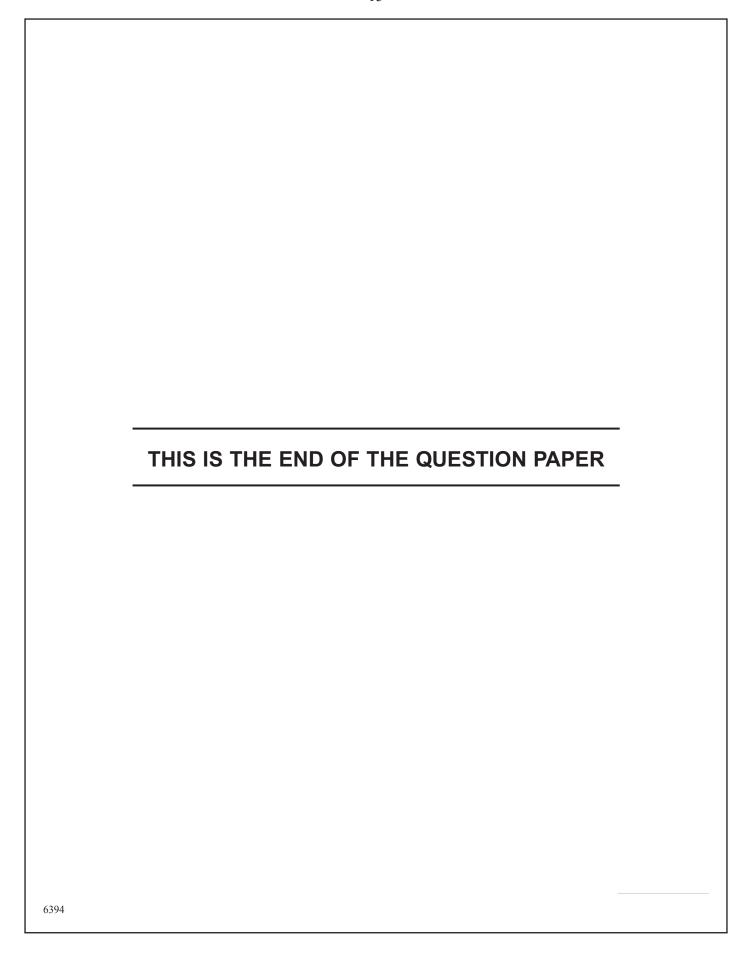
11	The exchange rate for £ to euro was £1 = €1. Jim bought a pair of jeans which cost €90 How much did the jeans cost in £?	15		Examin Marks	er Only Remark
		Answer £	[2]	Total Que	estion 11
12	Tony selects a ball at random from a bag con 4 white balls.	taining 8 blue, 1 green and			
	What is the probability that Tony selects a				
	(a) green ball?				
		Answer	[1]		
	(b) white ball?	A	F13		
		Answer			
	(c) ball which is not white?				
		Answer	[1]		
	(d) red ball?				
		Answer	[1]		
	(e) blue or a green ball?				
6394		Answer	[2]	Total Que	estion 12





14	2.1 m 2.8 m 1.7 m The diagram represents the side view of a garden shed with a sloping roof.	Examin Marks	er Only Remark
	Calculate the area of the side view of the shed. Give your answer to an appropriate degree of accuracy. Answer m² [3]	Total Qu	estion 14
15	To calculate the amount of income tax on his earnings, Tom used the following information. Total earnings = £24,265 Tax free personal allowance = £5,895 10% tax on first £3,200 of taxable income 28% tax on taxable income from £3,201 to £42,600 What total amount of income tax should he have calculated?		
6394	Answer £ [4]	Total Qu	estion 15







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