

General Certificate of Secondary Education January 2010

Mathematics



Module N5 Paper 2 (With calculator) Foundation Tier

[GMN52]

FRIDAY 15 JANUARY 10.45 am – 11.45 am





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 sixteen** 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.

For Examiner's use only								
Question Number	Marks							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
Total Marks								

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Formula Sheet



Volume of prism = area of cross section × length





[Turn over

2	A plumber prices a job using the formula									
	Tota con	al price = call-out charge + rate per hour \times number of hours job takes to nplete.								
	(a)	If the call-out charge is $\pounds 60$ and he charges $\pounds 45$ for each hour he works, use the formula to work out the total price of a job which takes three hours to complete.								
		Answer £ [2]								
	(b)	The same plumber prices another job at £285 Work out how many hours he expects this job will take to complete.								
		Answer hours [2]								
3	(a)	Jim is paid £6 per hour for 30 hours work from Monday to Friday and double the hourly rate for four hours on Saturday. How much does he earn for the week's work?								
		Answer £ [3]								

	(b)	John works the same hours as Jim. His rate is £7.26 per hour from Monday to Friday and 'time and a h on Saturday. How much more does he earn per week?	alf'	xaminer Only arks Remark
		Answer £	[5]	
4	Cla	ssify the probability of the following events as		
		certain, impossible, evens, unlikely or likely		
	(a)	April will have 31 days.		
		Answer	[1]	
	(b)	Someone you know will win the National Lottery jackpot.		
		Answer	[1]	
	(c)	The sun will rise tomorrow.		
		Answer	[1]	
	(d)	A tossed coin will show heads.		
		Answer	[1]	
5420]	 Turn over

Complete the pattern below 5

5	Complete the pattern below.	Examiner Marks -	Only Remark
	$\begin{bmatrix} 1 & 2 & 4 & 8 & 16 \\ 3 & 6 & 12 \\ \hline & 18 \\ \hline & & & & \\ \hline & & & & & \\ \hline & & & & &$		
6	The distance between two towns is 24 kilometres. How many miles is this?		
	Answer miles [2]		

A probability scale is drawn below. 7



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[Turn over

,	(a)	Add o has rot	ne squat tational	re to the symme	e follo try of	owing order	diag 2	ram so	that the c	complete	e shape		Examir Marks	er Only Remar
				_										
												[1]		
	(c)	Name	two fou	r-sided	shape	es with	rota	ational	symmetry	y of orde	er 2	[1]		
				Answ	er				,			[2]		
.0	Jean for cha Hoy Giv	n buys a a city b nges th w much re your	£800 wo preak in e rest at a should answer	orth of e Paris. S the rate she rec to the n	euro a She sp e of € eive? earest	t the r ends $\frac{3}{4}$ £1.323	ate c of h = \pounds	of €1.2 her euro 1.	$34 = \pounds 1$ and					
								"	" 0.1					
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								í í Ans	'y y y û xlgy qpo wer £	ekkguûeqo Iko	i Irctkulmxg	h3465u0ri [3]		





14 Seamus drove from his home to the airport to collect his daughter. Examiner Only R He waited for her to arrive and then he drove home. Here is a distance-time graph for his complete journey. 35 30 Distance from home (km) 20 10 0 1400 1430 1500 1530 1600 1630 Time of day (a) For how many minutes did Seamus have to wait at the airport? Answer _____ minutes [1] (b) Work out his average speed on his journey to the airport. Give your answer in kilometres per hour. Answer _____ km/h [2] [Turn over



THIS IS THE END OF THE QUESTION PAPER

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