

varding Learning	

General Certificate of Secondary Education 2006

## Mathematics



Module M1 Paper 1 (Non-calculator) Foundation Tier

MONDAY 5 JUNE 1.30 pm – 2.15 pm

[GMM11]

	GMM11



45 minutes.

### **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 ten** questions. Any 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 49. 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 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				
Total Marks				

**Candidate Number** 

71

# **Formula Sheet**

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

**Volume of prism** = area of cross section × length



(a)							Examiner Only Marks Remark
This	circle is divide	d into 12 e	qual parts.				
Write shade	e down, <b>in its s</b> e <b>d</b> .	implest for	<b>rm</b> , the fra	ction of the	circle which	n is	
				Answer_		[2]	
(b) Write	$\frac{1}{5}$ as a percent	age.					
				Answer		_% [1]	
(c) Write	0.25 as a frac	tion.					
				Answer_		[1]	
( <b>d</b> ) Circle	e the fractions	below whic	ch are equa	1 to $\frac{2}{3}$			
	$\frac{9}{12}$	$\frac{6}{9}$	$\frac{5}{6}$	$\frac{6}{8}$	$\frac{10}{15}$		
						[2]	



**3** The table shows the temperature recorded at midnight for each day of a week in February.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
2°	-2°	-4°	1°	-2°	-5°	-3°

(a)	Which day had the lowest midnight temperature?	Examin Marks	er Only Remark
	Answer [1]		
(b)	How much colder was it at midnight on Wednesday than at midnight on Monday?		
	Answer° [1]		
(c)	On which day was the midnight temperature 3 degrees higher than that on Tuesday?		
	Answer [1]		



5	(a) Calculate $\frac{420 - 228}{8}$		Examiner On Marks Rem	
		Answer	[3]	
	<b>(b)</b> Write down $\sqrt{81}$			
		Answer	[1]	
	2			
	(c) Calculate $\frac{2}{7}$ of 28			
		Answer	.[2]	
	(d) Calculate $\frac{2}{5} \times \frac{3}{7}$			
	(a) Calculate $5 \times 7$			
		<b>A</b>	[1]	
		Answer	.[1]	
	(e) Calculate $6^2$			
		Answer	<b>[1]</b>	
		Answer	.[1]	
	(f) Calculate $0.2 \times 0.7$			
		<b>A</b>	[1]	
		Answer	.[1]	
	(g) Write 68.59 correct to one significant figu	re.		
		Answer	[1]	

			Examiner Only Marks Remark
Times	5       2         4       89         3       02225         2       34489         1       29	<b>1</b> 2 means 12 minutes	
(a) What was the longest time ta			
	Answer	minutes [1]	
( <b>b</b> ) How many pupils took less t	han 25 minutes?		
		Answer [1]	
(c) What time was the mode?			
	Answer	minutes [1]	
(d) What time was the median?			
	Answer	minutes [1]	
	<ul> <li>(a) What was the longest time ta</li> <li>(b) How many pupils took less t</li> <li>(c) What time was the mode?</li> </ul>	<ul> <li>test. The information is shown in the stem and leaf</li> <li>Times for on-line test</li> <li>5</li> <li>2</li> <li>3</li> <li>02225</li> <li>2</li> <li>34489</li> <li>1</li> <li>29</li> </ul> (a) What was the longest time taken? <ul> <li>Answer</li> <li>(b) How many pupils took less than 25 minutes?</li> <li>(c) What time was the mode?</li> <li>Answer</li> <li>(d) What time was the median?</li> </ul>	<ul> <li>5 2 4 89 3 02225 2 34489 1 29 1 2 means 12 minutes</li> <li>(a) What was the longest time taken? Answer minutes [1]</li> <li>(b) How many pupils took less than 25 minutes? Answer [1]</li> <li>(c) What time was the mode? Answer minutes [1]</li> </ul>

The grid shows the po cinema (C) and my ho		ool (S), the Le	eisure Centre	e (L), the	Examiner Only Marks Remark
	Nort	h	L X		
				•	
<sup>S</sup> X	— <b>Ж</b> Н				
		Scale:	1 cm repres	ents 500 m	
(a) The school is due	West of my hous	e.			
Complete the sent	ence with the cor	rect compass	direction.		
The cinema is		_ of my house		[1]	
( <b>b</b> ) What is the bearin	g of the Leisure	Centre from n	ny house?		
		Answ	er	° [1]	
(c) Find the actual di	stance of the cine	ema from the l	Leisure Cent	tre.	
		Ansv	ver	[3]	

7

Solve the equations			Examin	-
(a) $6x = 24$			Marks	Remark
	Answer $x =$	[1]		
<b>(b)</b> $x + 8 = 15$				
	Answer $x =$	[1]		
(c) $\frac{x}{4} = 7$				
	Answer $x =$	[1]		
(d) $2x - 7 = 11$				
	Answer $x =$	[2]		
The numbers of books sold by Mr Reid 9, 15, 13, 7, 12, 11,	17, 8, 13, 15			
Mrs Wright sold 81 books altogether on Which of them was better at selling book		r answer.		
Answer				
Answer because				





General Certificate of Secondary Education 2006

## Mathematics



Module M1 Paper 2 (With calculator) Foundation Tier

[GMM12]

MONDAY 5 JUNE 2.45 pm – 3.30 pm

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### TIME

45 minutes.

#### **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.

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### INFORMATION FOR CANDIDATES

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The Formula Sheet is on page 2.

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

**Centre Number** 

**Candidate Number** 

71

# **Formula Sheet**

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

**Volume of prism** = area of cross section × length



1	75 people were asked which season they liked best. The first three rows of the pictogram are drawn below.	Examiner Only Marks Remark
	SEASON LIKED BEST	
	Spring	
	Summer $( \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	
	Autumn	
	Winter	
	(a) 15 people liked Spring best.	
	Complete the key: $(\cdot) = \_$ people [1]	
	(b) How many people liked Summer best?	
	Answer [1]	
	(c) Complete the row of the pictogram for winter. [2]	



4	<b>(a)</b>	Write down all the factors of 14	Examiner Only Marks Remark
		Answer [2]	
	(b)	5 7 12 15 16 20 27	
		From the list of numbers, write down	
		(i) a square number	
		Answer [1]	
		(ii) a multiple of 9	
		(ii) a multiple of 7 Answer [1]	
		(iii) a number with more than five factors	
		Answer [2]	
5	(a)	Give a suitable <b>metric</b> unit for measuring the amount of paint in a large	
		paint tin.	
		Answer [1]	
	(b)	Find the length of the screwdriver using the <b>centimetre</b> scale shown.	
		Answer cm [2]	

6	<b>(a)</b>	Write the nur	mber twenty-	seven thousand	and forty-two in figures	s.	Examiner Only Marks Remark	
				Ans	wer	[1]		
	(b)	Write 82658	correct to the	e nearest 100				
					Answer	[1]		
	(c)	Write 7.3486	3 correct to t	wo decimal plac	es.			
					Answer	[1]		
	( <b>d</b> )	Write down t	he smallest o	f these three nu	nbers			
		0.325	0.36	0.3148				
					Answer	[1]		
7								
	Dra	a net of the	chocolate bo	x shown above.		[3]		



11	1 Visitor's tax costs 2.75 euro for the first day and 1.15 euro for each extra day.		
	(a) How much will the tax be for five day	s in total?	
		Answer euro [2]	
	( <b>b</b> ) The total tax paid by Lola was 13.10 e	euro. How long did she stay?	
		Answer days [3]	
12 <	No 'ie'	Ves word contain or 'ei'? No Box B Box C Box C box for Answer Box Answer Box [2]	

13	Use a scale of 1 cm to 20 m to draw the triangle with sides 140 m, 160 m and 180 m.	Examiner Only Marks Remark
	[3]	
14	Look at the list of numbers below:	
	4 6 8 9 25 27 29 36 39 From this list, write down a number which is	
	(a) a cube number Answer [1]	
	(b) a prime number [1]	
	(c) the cube root of 216 Answer [1]	

15	An engineer charged Pat £138 for 4 hours servicing and 1.5 hours repa work. The servicing cost £21 per hour. How much did repair work cost hour?	t per
	Answer £	[4]
	THIS IS THE END OF THE QUESTION PAPER	_