

General Certificate of Secondary Education 2009

## Mathematics



Module N2 Paper 2 (With calculator) Foundation Tier

[GMN22]

MONDAY 18 MAY 2.45 pm – 3.30 pm





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 twelve** 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 44.

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		
Total Marks		

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# **Formula Sheet**

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



1	The 10 boys in Class 12A gained the following marks in a test:	Examin Marks	er Only Remark
	18, 12, 15, 9, 13, 14, 20, 11, 10, 8		
	The 8 girls in Class 12A gained a total of 128 marks.		
	Which group did better, boys or girls? Give a reason for your answer.		
	Answer		
	because		
	[4]		
2	(a) Ravi has £600. He spends $\frac{1}{4}$ of this money on clothes and $\frac{1}{6}$ of the money on his holiday. What fraction of the £600 has he left?		
	Answer [4]		
	( <b>b</b> ) Which of the following fractions is nearest to $\frac{1}{4}$ ?		
	$\frac{2}{10}$ , $\frac{3}{20}$ , $\frac{7}{30}$ , $\frac{11}{40}$		
	Show clearly how you decided on your answer.		
	Answer [2]		
4559		[Tur	n over

Ν

Т

×

Examiner Only Marks

Rei

T is a point at the centre of a town square.

A bank, B, is marked on the diagram above.

(i) Find the bearing of B from T.

Answer \_\_\_\_\_\_° [1]

The scale of the diagram is 1 cm = 20 m.

The cinema C is 90 m from T and on a bearing of  $160^{\circ}$  from T.

(ii) Mark the position of the cinema, C, on the diagram above. [2]



[Turn over

4	Katy wants to know how many times a month, on average, the people i her town go to the cinema. She asks 200 pupils in her school.	1) Examiner Only Marks Remar
	Explain why Katy's sample may not be representative of the people in town.	her
	Answer	
		[1]
5	(a) Solve the equation $\frac{y}{3} = 6$	
	Answer <i>y</i> =	_[1]
	( <b>b</b> ) Expand and simplify $4(2a + 3) - 7$	
	Answer	_ [2]
6	The heights (in centimetres) of twenty boys in a local hockey club are:	
	181170162153182171163158185174166157177167178167178167169168	
	Construct a stem and leaf diagram to illustrate these heights.	
		[3]

7	Construct a rhombus of side 6.5 cm which has one of its diagonals 5 cm length.	in	Examine Marks	er Only Remark
		[4]		
8	A wardrobe was priced at £640 In a sale its price was reduced by 35%. Calculate the sale price of the wardrobe.			
	Answer £	_[3]		

<sup>[</sup>Turn over

9	Calculate the length of BC in the right angled triangle below.	Examin	er Only
	B 25 cm C 7 cm A Answercm [3]	Marks	Remark
10	A man is filling his garden pond with water. He can fill a bucket of water and empty it into the pond every 25 seconds. The bucket holds 15 litres of water. It takes the man 4 minutes and 35 seconds to fill the pond. What volume of water does the pond hold?		
	Answer [4]		



### THIS IS THE END OF THE QUESTION PAPER

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