

SHILDEN BOUNTY COM

**General Certificate of Secondary Education** 2009

## **Mathematics**



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

[GMN52] **MONDAY 1 JUNE** 10.45 am - 11.45 am



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 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.

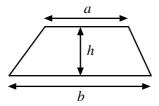
The Formula Sheet is on page 2.

For Examiner's use only						
Question Number	Marks					
1						
2						
3						
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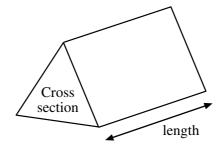
Total	
Marks	

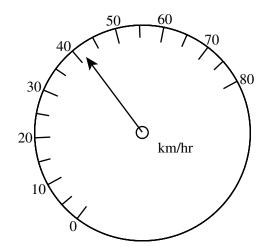
# **Formula Sheet**

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



**Volume of prism** = area of cross section  $\times$  length





Examiner Only					
Marks	Remark				

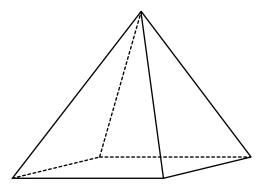
(a) Write down the reading on the speedometer.

Answer \_\_\_\_\_km/hr [1]

(b) Indicate with an arrow a reading of 55 km/hr.

[1]

2 This diagram shows a square based pyramid.



(a) How many edges does the pyramid have?

Answer \_\_\_\_ [1]

(b) How many faces does the pyramid have?

Answer \_\_\_\_ [1]

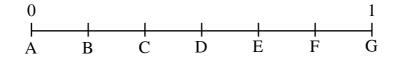
(c) How many congruent faces does the pyramid have?

Answer \_\_\_\_ [1]

3	Each week Mr Jubal earns 45p commission on each ticket he sells for the first 200 tickets and 60p per ticket for any extra tickets he sells.  Last week he sold 280 tickets. How much did he earn?	Examiner C	Only emark
	Answer £ [4]		
4	The formula used to calculate the weekly wage of a car salesman is		
	Weekly wage = Basic wage + number of cars sold × bonus payment		
	The basic wage is £250 and a bonus of £45 is paid for every car sold in a week.		
	Use the formula to calculate his wage in a week when he sells 4 cars.		
	Answer £[2]		
5	Trudy buys a length of ribbon to make 24 badges each 5.6 cm long.		
	(a) What length of ribbon should she buy?		
	Give your answer to an appropriate degree of accuracy.		
	Answer m [3]		
	(b) Explain why you chose this answer.		

6	Malik selects a cube at random from a bag containing 7 red, 1 yellow and 5 white cubes.  Exam Marks									
	What is the probability that Malik									
	(a) selects a yellow cube,									
		Answer [1]								
	(b) does not select a yellow cube,									
		Answer [1]								
	(c) selects a red cube or a yellow cube?									
		Answer [2]								
7	A rectangle has length $L$ and breadth $B$ .									
	(a) The perimeter of the rectangle is given by the formula $P = 2L + 2B$ .									
	Calculate the perimeter when the length is 10 4 cm.	cm and the breadth is								
	An	swercm [2]								
	(b) The area of the rectangle is given by the form	ula $A = LB$ .								
	Calculate the area when the length is 10 cm as	nd the breadth is 4 cm.								
	Ans	ewercm <sup>2</sup> [1]								

8	On £15 His for	any wants to buy a TV priced at £899 hire purchase he would pay £430 dep 5.20 sister offers to buy the TV for him it two years. w much less would he pay in total by	OI	ats of Ma		
			Answer £	[6]	[6]	
9	(a)	Draw lines to match metric to imper	rial units.			
		centimetre	pound			
		metre	_mile			
		kilometre —	yard			
		gram	inch			
		kilogram	ounce	[3]	[3]	
	<b>(b)</b>	A distance of 40 kilometres is appro-	oximately how many miles?			
			Answer mile	es [2]	niles [2]	
	(c)	A jug holds 7 pints of water when for the jug hold when full?	ull. How many litres of water of	does	er does	
			Answer litre	es [2]	itres [2]	



Examiner Only

Marks Remark

A fair dice, marked 1, 2, 3, 4, 5, 6 is thrown. Choose the letter on the probability scale which best matches

(a) the probability of a score of 3,

Answer \_\_\_\_\_ [1]

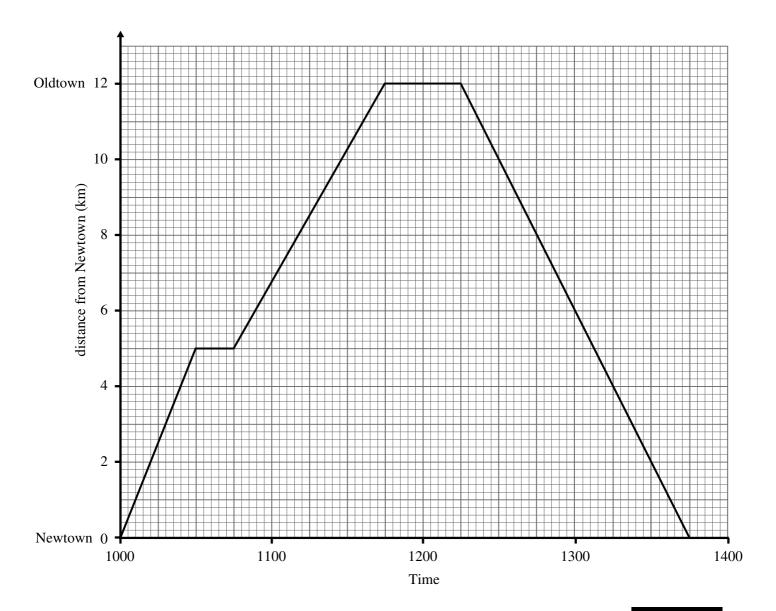
(b) the probability of a score of less than 3,

Answer \_\_\_\_\_ [1]

(c) the probability of a score of less than 8

Answer \_\_\_\_\_ [1]

11 An athlete goes for a run from Newtown to Oldtown and back. His journey is illustrated on the graph.



(	(a)	What is	happening	between	1030	and	1045?

Answer \_\_\_\_\_\_[1]

**(b)** How far has the athlete run in total?

Answer \_\_\_\_\_km [1]

(c) What is the athlete's speed on the return journey from Oldtown to Newtown?

Answer \_\_\_\_\_km/hr [2]

12	A four-sided spinner has the numbers 1, 3, 5, 7 written on it. The probability of getting each number is the same.  A fair dice has the numbers 2, 4, 6, 8, 10, 12 written on it.  In a game the spinner is spun and the dice rolled and their scores are added together.									Examiner O  Marks Rei	Only mark
	(a) Use the two-way table to show all the outcomes for the sum of the two scores.										
		+	2	4	6	8	10	12	]		
		1		•			10	12	-		
		3									
		5							-		
		7							[2]		
	( <b>b</b> ) What is 14?	the prob	ability t	hat the	sum of	the two	scores	is great	er than		
						<b>A</b>			[2]		
						Ans	swer		[2]		
13	A bag of 25 How many p	_						_			
						A	Answer		[2]		

14	To feed 30 people John makes							
	20 beef sandwiches 36 cheese sandwiches 52 ham sandwiches	Marks	Remark					
	How many of each would he need to make for 45 people?							
	Answer beef							
	cheese							
	ham [3]							
15	Simplify							
	(a) $t^3 \times t^3$							
	Answer [1]							
	<b>(b)</b> $r^6 \div r^2$							
	Answer [1]							
16	£180 is divided between Lisa, Mikey and Richard in the ratio 8:1:6 How much does each get?							
	Answer Lisa £							
	Mikey £							
	Richard £ [3]							

## THIS IS THE END OF THE QUESTION PAPER

