CO
Rewarding Learning

## General Certificate of Secondary Education

Mathematics


Module N5 Paper 2
(With calculator)
Foundation Tier
[GMN52]
MONDAY 1 JUNE
10.45am-11.45am

## 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 <br> use only |  |
| :---: | :---: |
| Question <br> Number | Marks |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16 |  |
| Total <br> Marks |  |

## Formula Sheet

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


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


(a) Write down the reading on the speedometer.

Answer $\qquad$ $\mathrm{km} / \mathrm{hr}$ [1]
(b) Indicate with an arrow a reading of $55 \mathrm{~km} / \mathrm{hr}$.

2 This diagram shows a square based pyramid.

(a) How many edges does the pyramid have?

Answer $\qquad$ [1]
(b) How many faces does the pyramid have?

Answer $\qquad$ [1]
(c) How many congruent faces does the pyramid have?

Answer $\qquad$

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?

Answer $£$

4 The formula used to calculate the weekly wage of a car salesman is

Weekly wage $=$ Basic wage + number of cars sold $\times$ 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 £

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 $\qquad$ m [3]
(b) Explain why you chose this answer.
$\qquad$
$\qquad$

6 Malik selects a cube at random from a bag containing 7 red, 1 yellow and 5 white cubes.

What is the probability that Malik
(a) selects a yellow cube,

Answer $\qquad$ [1]
(b) does not select a yellow cube,

Answer $\qquad$ [1]
(c) selects a red cube or a yellow cube?

Answer $\qquad$ [2]
Answ

7 A rectangle has length $L$ and breadth $B$.
(a) The perimeter of the rectangle is given by the formula $P=2 L+2 B$.

Calculate the perimeter when the length is 10 cm and the breadth is 4 cm .

Answer $\qquad$ cm [2]
(b) The area of the rectangle is given by the formula $A=L B$.

Calculate the area when the length is 10 cm and the breadth is 4 cm .

Answer $\qquad$ $\mathrm{cm}^{2}$ [1]

8 Danny wants to buy a TV priced at $£ 899$
On hire purchase he would pay $£ 430$ deposit and 40 weekly payments of £15.20
His sister offers to buy the TV for him if he pays her back $£ 40$ per month for two years.
How much less would he pay in total by the cheaper method?

Answer $£$

9 (a) Draw lines to match metric to imperial units.

| centimetre | pound |
| :--- | :--- |
| metre | mile |
| kilometre | yard |
| gram | inch |
| kilogram | ounce |

(b) A distance of 40 kilometres is approximately how many miles?

Answer $\qquad$ miles
(c) A jug holds 7 pints of water when full. How many litres of water does the jug hold when full?

Answer $\qquad$ litres [2]


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

Answer $\qquad$ [1]
(c) the probability of a score of less than 8

Answer $\qquad$ [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
(b) How far has the athlete run in total?

Answer $\qquad$ km [1]
(c) What is the athlete's speed on the return journey from Oldtown to Newtown?

Answer $\qquad$ $\mathrm{km} / \mathrm{hr}$ [2]
$\square$

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.
(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 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |

(b) What is the probability that the sum of the two scores is greater than 14 ?

Answer $\qquad$ [2]

13 A bag of 25 potatoes selected at random in a store has 4 bad potatoes. How many potatoes are expected to be bad out of a bag of 200 potatoes?

Answer $\qquad$ [2]

14 To feed 30 people John makes
20 beef sandwiches
36 cheese sandwiches
52 ham sandwiches
How many of each would he need to make for 45 people?
Answer beef $\qquad$
cheese $\qquad$ ham $\qquad$ [3]

15 Simplify
(a) $t^{3} \times t^{3}$

Answer $\qquad$
(b) $r^{6} \div r^{2}$

Answer $\qquad$ [1]
$16 £ 180$ is divided between Lisa, Mikey and Richard in the ratio $8: 1: 6$ How much does each get?

Answer Lisa $£$ $\qquad$
Mikey $£$ $\qquad$
Richard £ $\qquad$ [3]
How many of each would he need to make for 45 people?
$\qquad$

Richard

