



Rewarding Learning

General Certificate of Secondary Education
2011

Centre Number

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Candidate Number

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Mathematics
Module N5 Paper 2
(With calculator)
Foundation Tier

[GMN52]



GMN52

MONDAY 6 JUNE
2.45 pm – 3.45 pm

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 fifteen** 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	

Total Marks	
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6394

Examiner Number

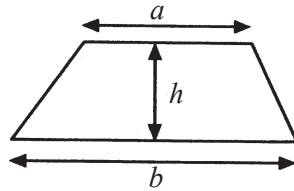
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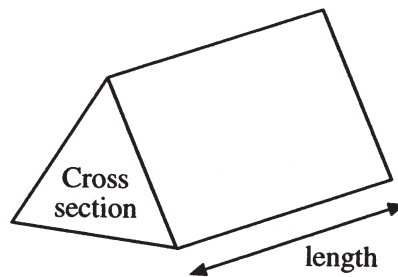
JUNE 11 GMN52

Formula Sheet

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



Volume of prism = area of cross section \times length



(b) (i) In the space below draw a sketch of a square-based pyramid.

(ii) Using your pyramid, work out the answer to the following calculation.

Show your working.

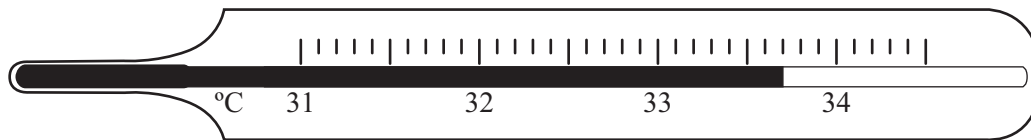
Answer _____ [2]

Examiner Only	
Marks	Remark
Total Question 1	

[Turn over

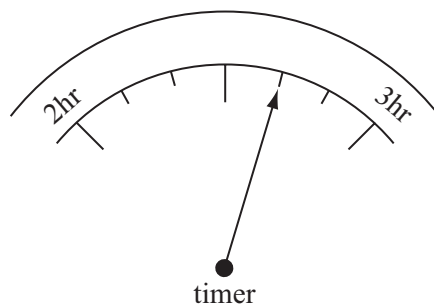


2 (a) Write down the temperature shown on the thermometer.



Answer _____ °C [1]

(b) Write down the reading from the timer.

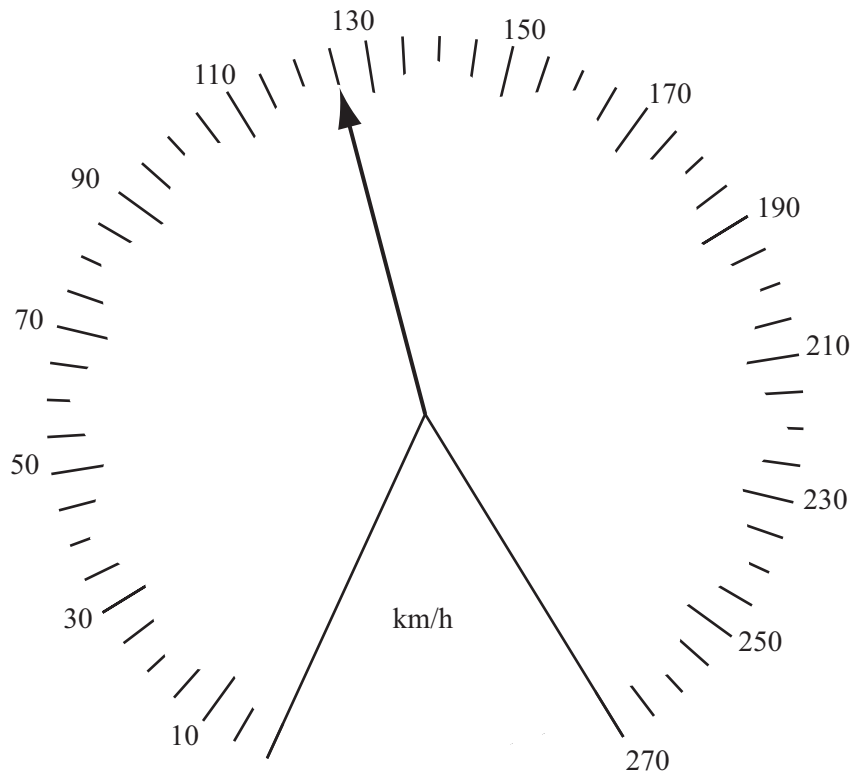


Answer _____ hrs _____ mins [1]

Examiner Only	
Marks	Remark



(c) The speedometer below shows the speed in km/h.



(i) What speed is shown?

Answer _____ km/h [1]

(ii) On the speedometer draw an arrow to show a speed of 158 km/h. [1]

(iii) What is the difference between the speed in (i) and the speed in (ii)?

Answer _____ km/h [1]

Examiner Only

Marks Remark

Total Question 2

[Turn over]



$$\text{Cost (pence)} = 35 \times \text{colour prints} + 10 \times \text{black and white prints}$$

- Work out the cost in pounds (£).

Answer £ _____ [2]

- $$\text{Cost (pence)} = 30 \times \text{number of prints} + 90$$

How much would Gemma have paid in The Fast Print?

Answer £ _____ [2]

Total Question 3

12, -2, 7, -9, 13, -14, 6, -10

(a) the warmest temperature,

Answer _____ °C [1]

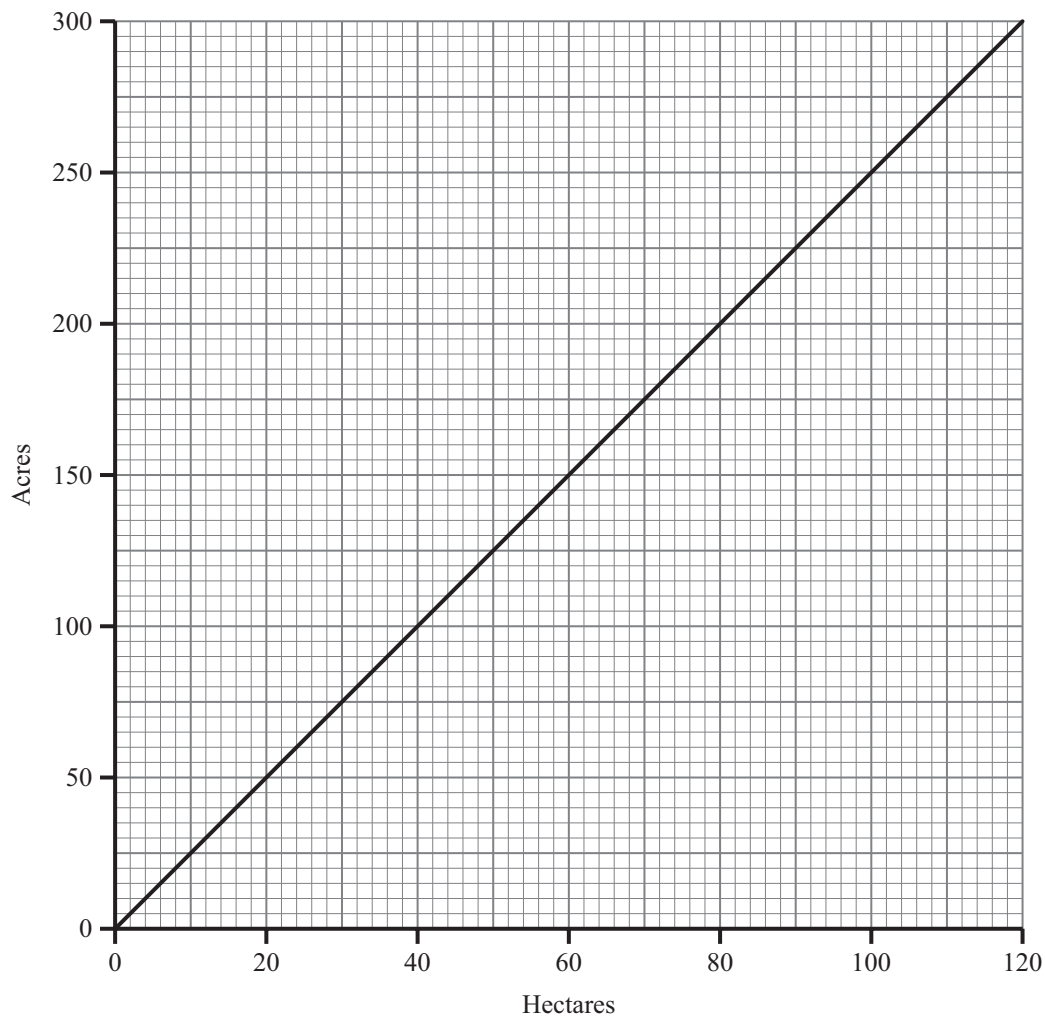
- (b) the coldest temperature.

Answer °C [1]

Total Question 4

5 Land area can be measured in hectares or in acres.

The conversion graph shows how to convert between hectares and acres.



(a) How many hectares are in 220 acres?

Answer _____ hectares [1]

(b) Work out the number of acres in 150 hectares.

Answer _____ acres [1]

(c) Complete the sentence

An acre is _____ times greater than a hectare. [1]

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Examiner Only

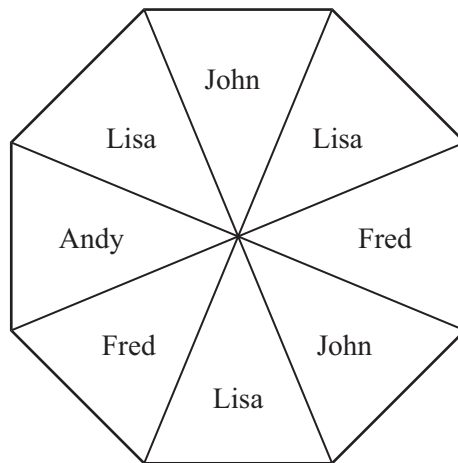
Marks Remark

Total Question 5

[Turn over



- 6 The spinner below is a regular octagon. It can land on any name.



- (a) Which name is the spinner most likely to land on?

Answer _____ [1]

- (b) Which two names is the spinner equally likely to land on?

Answer _____ , _____ [1]

- (c) Write down a name which the spinner **cannot** land on.

Answer _____ [1]

- (d) Is the spinner more likely to land on a boy's or girl's name?

Answer _____ [1]

- (e) The spinner is spun 200 times. How many times would you expect it to land on the name Lisa?

Answer _____ [2]

Examiner Only

Marks Remark

Total Question 6



A H J N P S W X

- Answer _____, _____ [1]

- Answer _____, _____ [2]

- Answer _____, _____ [2]

[Turn over

- (a)** $5 \times 4 + 3 - 2 = 33$ [1]

- (b)** $9 - 3 \times 2 + 7 = 54$ [1]

9 800 tickets numbered 1 to 800 are sold for a raffle.

- (a) What is the probability that the winning ticket has a number greater than 550?

Answer _____ [2]

- (b)** The probability that a male has the winning ticket may not be $\frac{1}{2}$. Explain why.

Answer _____

 [1]

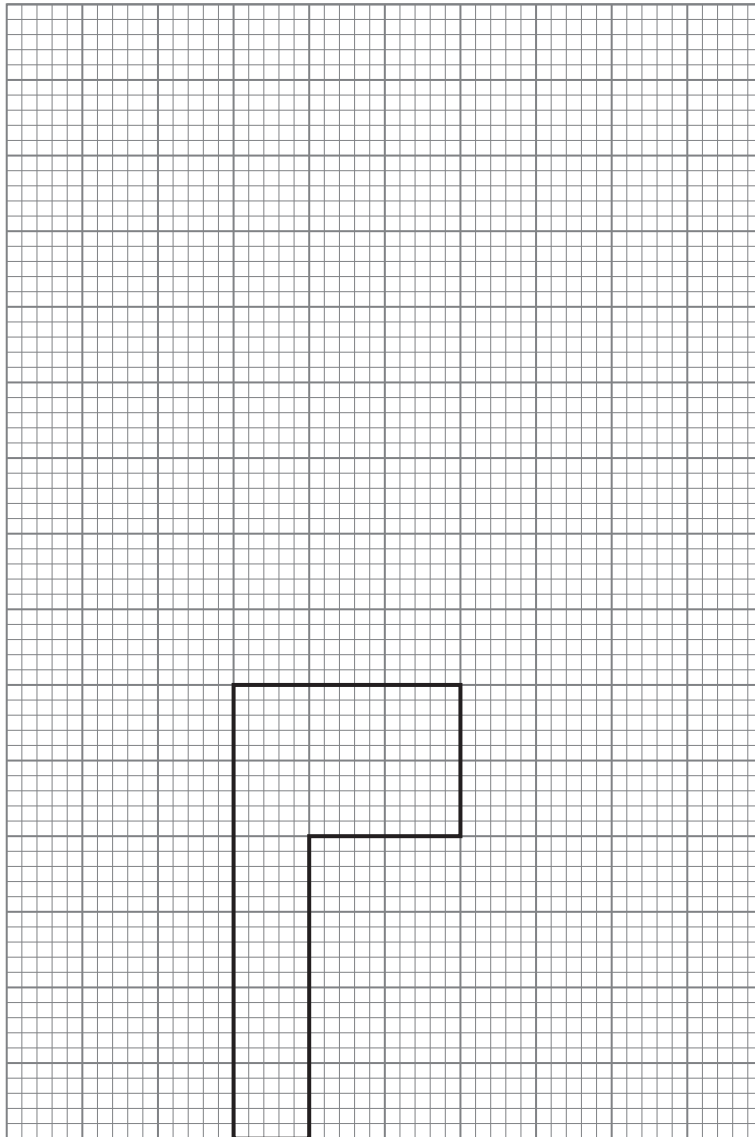
Examiner Only	
Marks	Remark
Total Question 9	



10 (a) What 5-sided shape has rotational symmetry of order 5?

Answer _____ [2]

(b) Enlarge the shape below using a scale factor of 2



[2]

Examiner Only	
Marks	Remark

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[Turn over]



- 11 The exchange rate for £ to euro was $\text{£}1 = \text{€}1.15$
 Jim bought a pair of jeans which cost €90
 How much did the jeans cost in £?

Answer £ _____ [2]

Examiner Only	
Marks	Remark
Total Question 11	
Total Question 12	

- 12 Tony selects a ball at random from a bag containing 8 blue, 1 green and 4 white balls.

What is the probability that Tony selects a

(a) green ball?

Answer _____ [1]

(b) white ball?

Answer _____ [1]

(c) ball which is **not** white?

Answer _____ [1]

(d) red ball?

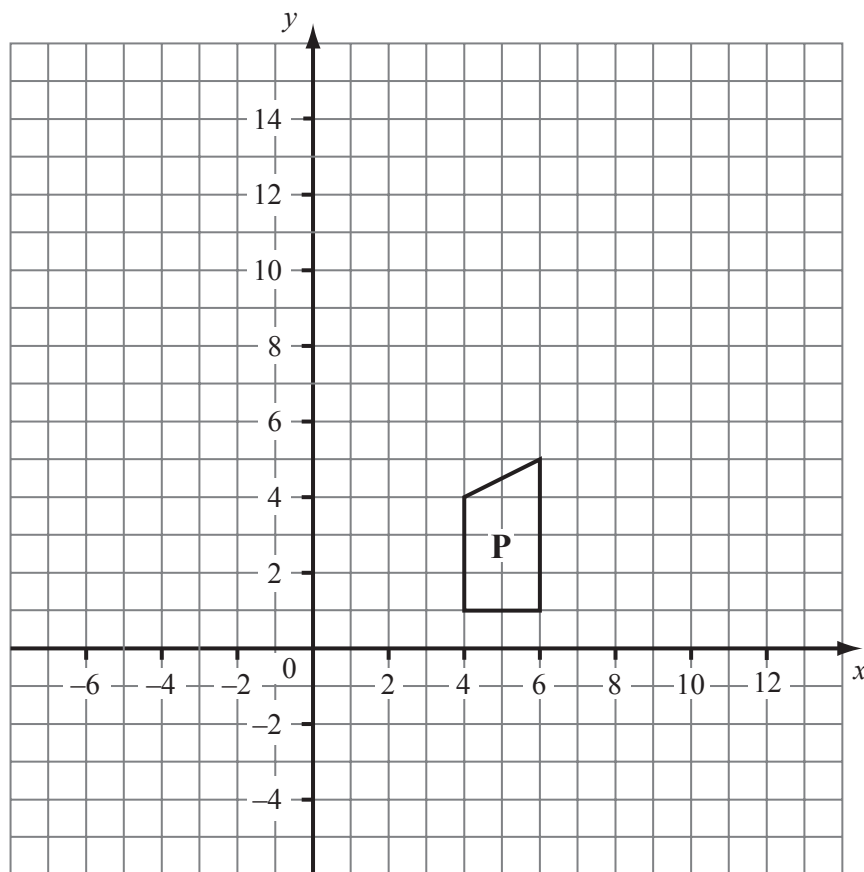
Answer _____ [1]

(e) blue or a green ball?

Answer _____ [2]



13



Shape P is shown on the grid.

(a) Reflect P in the y axis.

[1]

(b) Draw the image of shape P after a translation $\begin{pmatrix} -3 \\ 5 \end{pmatrix}$.

[2]

Examiner Only	
Marks	Remark
Total Question 13	

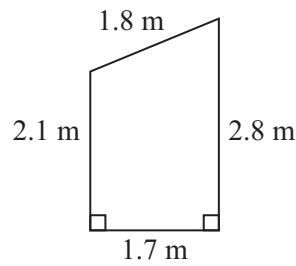
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[Turn over]



1 3

14



The diagram represents the side view of a garden shed with a sloping roof.
Calculate the area of the side view of the shed.
Give your answer to an appropriate degree of accuracy.

Answer _____ m² [3]

Examiner Only	
Marks	Remark
Total Question 14	
Total Question 15	

- 15 To calculate the amount of income tax on his earnings, Tom used the following information.

Total earnings = £24,265

Tax free personal allowance = £5,895

10% tax on first £3,200 of taxable income

28% tax on taxable income from £3,201 to £42,600

What total amount of income tax should he have calculated?

Answer £ _____ [4]



THIS IS THE END OF THE QUESTION PAPER



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