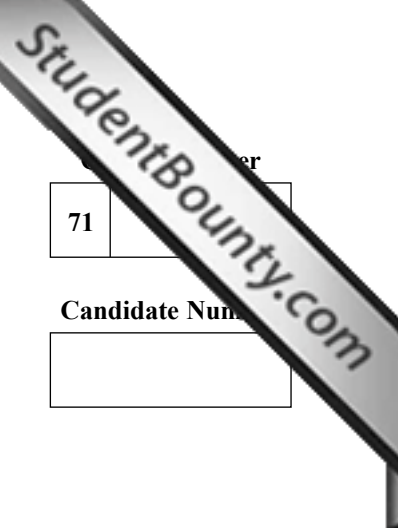




General Certificate of Secondary Education
2010



71

Candidate Number

Mathematics



Module N1 Paper 1
(Non-calculator)
Foundation Tier
[GMN11]



TUESDAY 1 JUNE
9.15 a.m. – 10.00 a.m.

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 thirteen** 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 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 ruler, compasses, set-square and protractor.


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

- 1 In Highfield School, the Year 12 had a “Battle of the Bands” competition. They **all** voted for their favourite band.

A pictogram is used to display the number of votes for each band.

Band name	Number of votes
THUD	
LAST CHANCE	
INK SPOT	
THE SHIVERS	

“THUD” got 35 votes

- (a) Complete the key:  means ____ votes [1]

- (b) How many votes did “LAST CHANCE” get?

Answer _____ [1]

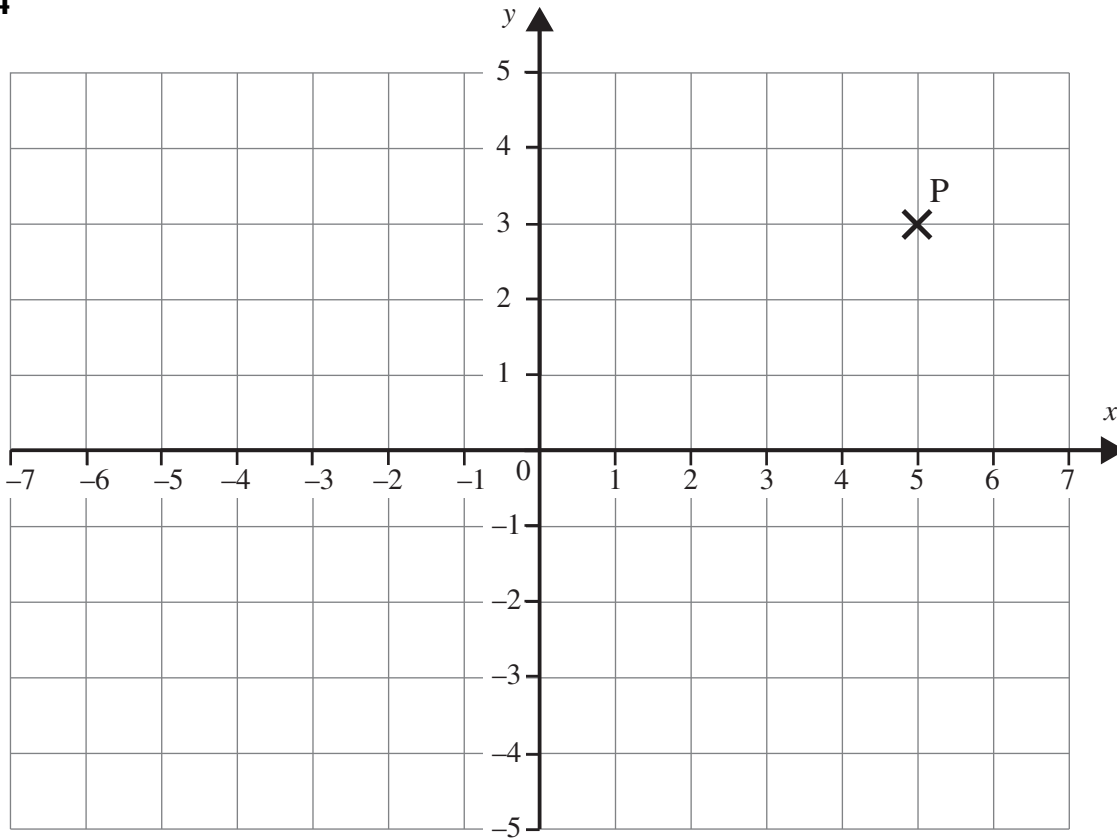
- (c) “INK SPOT” received 13 votes. Complete the pictogram. [1]

- (d) How many are there in Year 12?

Answer _____ [1]

Examiner Only	
Marks	Remark

4



(a) Write down the co-ordinates of the point P.

Answer (____, ____) [1]

(b) Plot and label the point Q (0, 2).

[1]

(c) Draw the line $x = 2$ on the grid above.

[1]

5 (a) Write down all the factors of 24

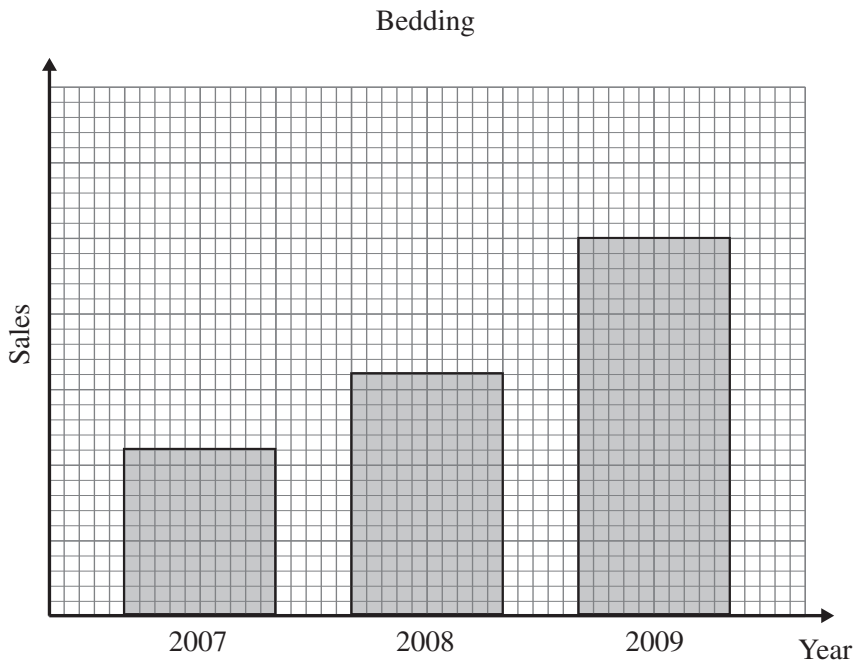
Answer _____ [2]

(b) Write down the cube root of 125

Answer _____ [1]

Examiner Only	
Marks	Remark

6 The company “Dreamtime” advertise their sales success with this bar chart.



(a) (i) What does the bar chart tell you about their sales?

_____ [1]

(ii) What is wrong with this bar chart?

_____ [1]

(b) Each day (Monday to Saturday) for two weeks “Dreamtime” recorded the number of pillow sales.

10 8 12 5 16 24 8 16 14 11 14 20

Find the median number of pillow sales.

Answer _____ [2]

Examiner Only	
Marks	Remark

- 7 (a) The midday temperature in Paris was 5°C .
By midnight the temperature had dropped by 9°C .
What was the midnight temperature in Paris?

Answer _____ $^{\circ}\text{C}$ [1]

- (b) The midnight temperature in Moscow was -12°C .
By midday the temperature was 2°C .
By how many degrees had the temperature risen?

Answer _____ $^{\circ}\text{C}$ [1]

- 8 In a quiz game, two teams must each answer 80 questions.
They score 1 point for each correct answer.

The quiz is not yet finished.
Each team has answered 60 questions.

??? TEAM A ???

80% of 60 questions
correct

??? TEAM B ???

$\frac{1}{2}$ of 60 questions
correct

Can Team B win the quiz?

Answer _____

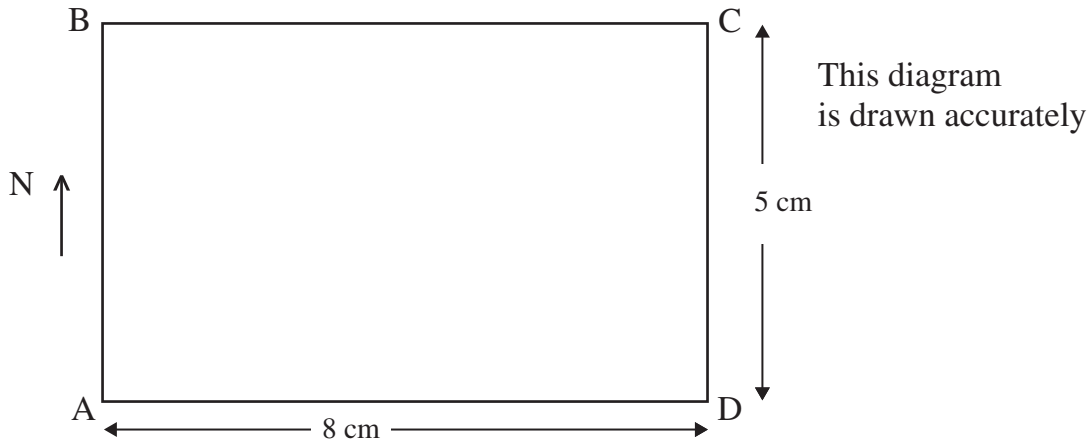
Explain your answer fully.

[4]

Examiner Only

Marks Remark

9



(a) Work out the area of this rectangle.

Answer _____ cm^2 [2]

(b) Work out the perimeter of this rectangle.

Answer _____ cm [1]

(c) Measure the bearing of

(i) C from A,

Answer _____ $^\circ$ [1]

(ii) D from B.

Answer _____ $^\circ$ [1]

Examiner Only	
Marks	Remark

- 10 The stem and leaf diagram shows the ages, in years, of 24 ladies who took part in the Belfast “Runher” 8 km Fun Run in October 2008.

1		8 9 9
2		0 1 1 4 5
3		2 3 3 3 6 7 8 9
4		0 1 2 4 4 5
5		3 4

Key: 1 | 8 means 18 years old

- (a) Write down the modal age.

Answer _____ [1]

- (b) How many of the ladies were less than 35 years old?

Answer _____ [1]

- (c) Exactly a quarter of the ladies are above a certain age.
What is that age?

Answer _____ [2]

-
- 11 Solve the equation $7x - 4 = 38$

Answer $x =$ _____ [2]

Examiner Only

Marks Remark

12 Work out the size of the angle marked x in the diagram.

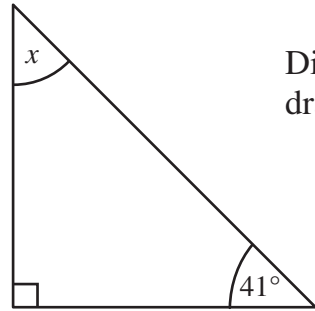


Diagram not drawn accurately

Answer $x =$ _____ $^{\circ}$ [2]

Examiner Only	
Marks	Remark

13 Calculate $\frac{2}{5} \times \frac{1}{10}$

Give your answer in its simplest form.

Answer _____ [2]

THIS IS THE END OF THE QUESTION PAPER
