



Rewarding Learning

General Certificate of Secondary Education

January 2009

Mathematics

Module N1 Paper 1
(Non-calculator)
Foundation Tier

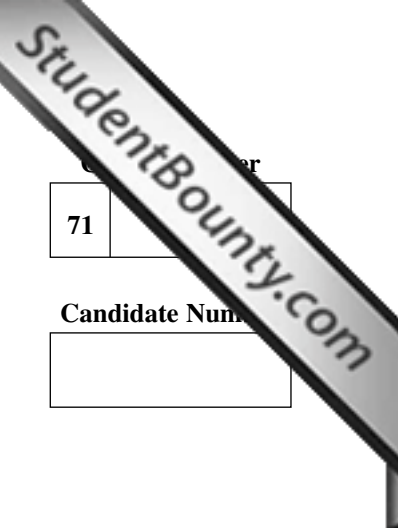
[GMN11]

FRIDAY 9 JANUARY

9.15 am – 10.00 am



GMN11



| | |
|----------------------|--|
| 71 | |
| Candidate Number | |
| <input type="text"/> | |

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 eleven** 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 | |
| Total Marks | |

- 1 (a) The day of the month on which pupils in a year 12 group were born was recorded.

The results are shown below.

29 26 15 1 3 8 17 21 9 8
22 18 14 4 3 7 28 30 2 10
13 9 12 5 8 17 31 6 10 4

Complete the frequency table.

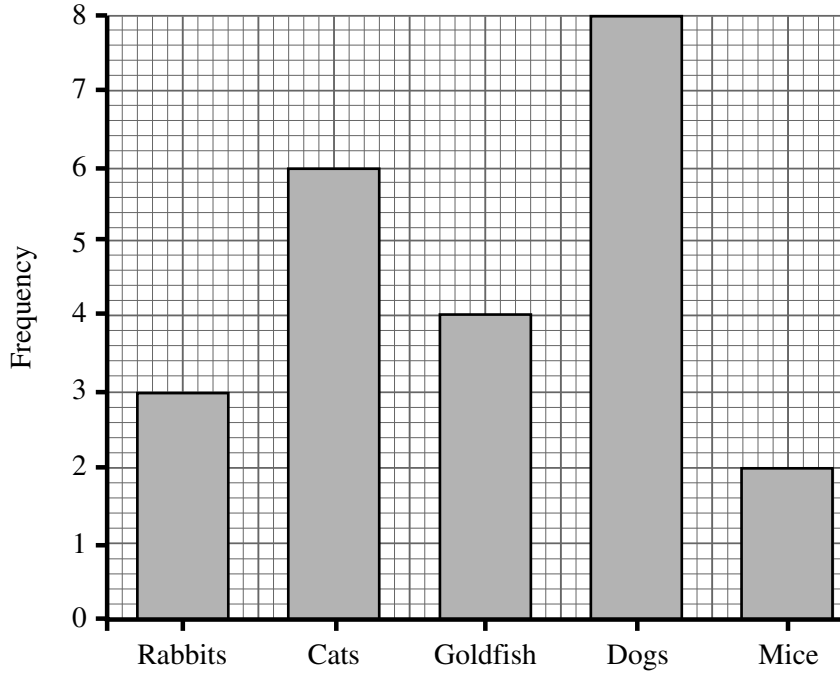
| Born | Tally (if required) | Frequency |
|--------------|---------------------|-----------|
| 1st to 5th | | |
| 6th to 10th | | |
| 11th to 15th | | |
| 16th to 20th | | |
| 21st to 25th | | |
| 26th to 31st | | |

[2]

Examiner Only

Marks Remark

(b)



The bar graph shows the distribution of pets kept by children in a year 8 class.

How many

(i) goldfish were there,

Answer _____ [1]

(ii) pets were there in total?

Answer _____ [2]

| Examiner Only | |
|---------------|--------|
| Marks | Remark |
| | |

| | | | | |
|----|----|----|----|----|
| 65 | 34 | 12 | 61 | 46 |
| 18 | 56 | 80 | 25 | 63 |

| Examiner Only | |
|---------------|--------|
| Marks | Remark |
| | |

(a) From the numbers in the grid, write down

(i) two numbers with a total of 80,

Answer _____ , _____ [1]

(ii) two numbers with a difference of 40,

Answer _____ , _____ [1]

(iii) two factors of 36,

Answer _____ , _____ [1]

(iv) a square number.

Answer _____ [1]

(b) What is the highest number you can get by multiplying any two numbers in the grid?

Answer _____ [2]

3 (a) (i) Draw a circle of radius 4 cm.

[1]

(ii) Draw a chord of the circle.

[1]

(b) (i) Draw a quadrilateral with only one pair of parallel lines, in the space below.

[1]

(ii) What is the special name given to this quadrilateral?

Answer _____ [1]

| Examiner Only | |
|---------------|--------|
| Marks | Remark |
| | |

[Turn over

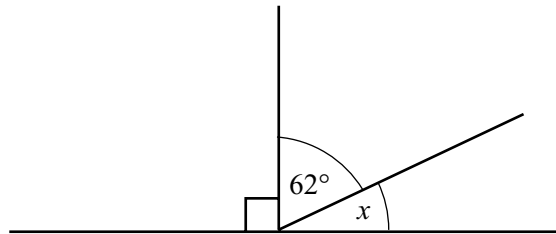
4 Find the median of the following numbers

13 4 5 21 24 18 2 9 5 15 3 11 16 23 8 20

Answer _____ [2]

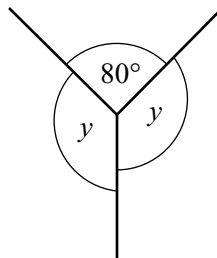
5 Calculate

(a) angle x



Answer $x =$ _____ $^\circ$ [1]

(b) angle y



Answer $y =$ _____ $^\circ$ [1]

Examiner Only

Marks

Remark

6 (a) Calculate

(i) $272 \div 8$

Answer _____ [1]

(ii) $\frac{3}{7} \times 56$

Answer _____ [2]

(iii) 0.5×0.3

Answer _____ [1]

(iv) $\frac{3}{8} - \frac{1}{4}$

Answer _____ [2]

(b) Write down $\sqrt{64}$

Answer _____ [1]

Examiner Only

Marks Remark

[Turn over

8 (a) Find the value of $5x - 2y$ when $x = -2$ and $y = 4$

Answer _____ [2]

(b) Solve the equations

(i) $9x = 27$

Answer $x =$ _____ [1]

(ii) $\frac{y}{3} = 6$

Answer $y =$ _____ [1]

(iii) $\frac{18}{z} = 3$

Answer $z =$ _____ [1]

Examiner Only

Marks

Remark

- 9 The stem and leaf diagram represents the heights of 21 students in a year 8 class.

| Stem | Leaf |
|------|---------------|
| 13 | 6 9 |
| 14 | 1 2 3 3 4 |
| 14 | 5 6 7 7 8 8 9 |
| 15 | 1 2 4 4 |
| 15 | 5 8 |
| 16 | 2 |

Key: 13 | 6 means 136 cm

Write down

- (a) the range of the data,

Answer _____ cm [1]

- (b) the median of the data.

Answer _____ cm [1]

| Examiner Only | |
|---------------|--------|
| Marks | Remark |
| | |

10 (a) Construct the triangle ABC with $AB = 7$ cm, $BC = 4$ cm and $AC = 5$ cm.

Do not rub out your construction lines.

[3]

(b) Measure the size of angle CAB.

Answer _____° [1]

| Examiner Only | |
|---------------|--------|
| Marks | Remark |
| | |

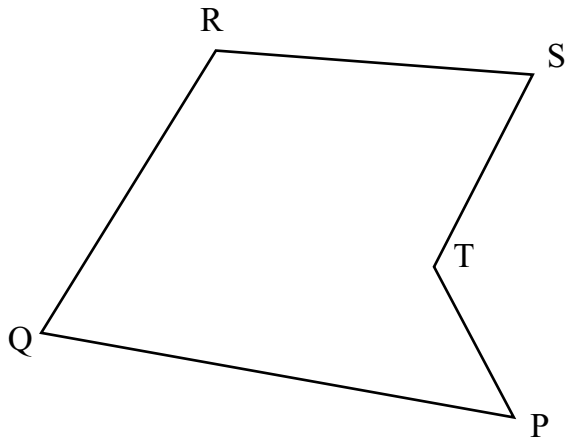
11 (a) Calculate 40% of 60

Answer _____ [2]

(b) Work out $6.2 - 2.73$

Answer _____ [1]

(c) Mark a reflex angle in the shape shown.



[1]

| Examiner Only | |
|---------------|--------|
| Marks | Remark |
| | |

THIS IS THE END OF THE QUESTION PAPER
