



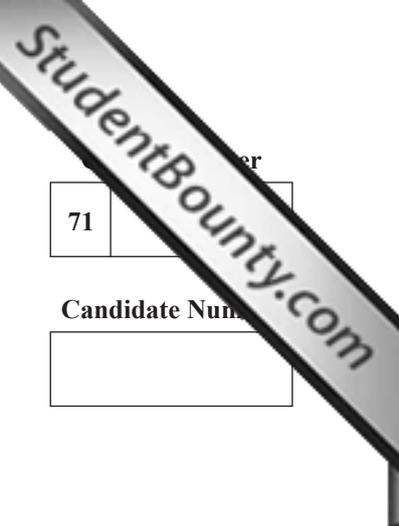
General Certificate of Secondary Education  
January 2011

## Mathematics

Module N2 Paper 1  
(Non-calculator)  
Foundation Tier

[GMN21]

TUESDAY 11 JANUARY  
9.15 am – 10.00 am



er

71

Candidate Number

### 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.

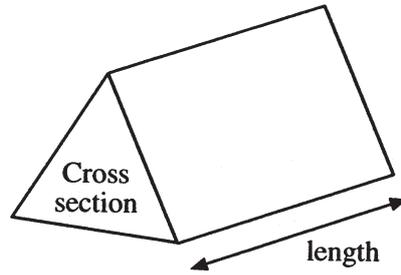
The Formula Sheet is on page 2.

| For Examiner's use only |       |
|-------------------------|-------|
| Question Number         | Marks |
| 1                       |       |
| 2                       |       |
| 3                       |       |
| 4                       |       |
| 5                       |       |
| 6                       |       |
| 7                       |       |
| 8                       |       |
| 9                       |       |
| 10                      |       |
| 11                      |       |
| <b>Total Marks</b>      |       |

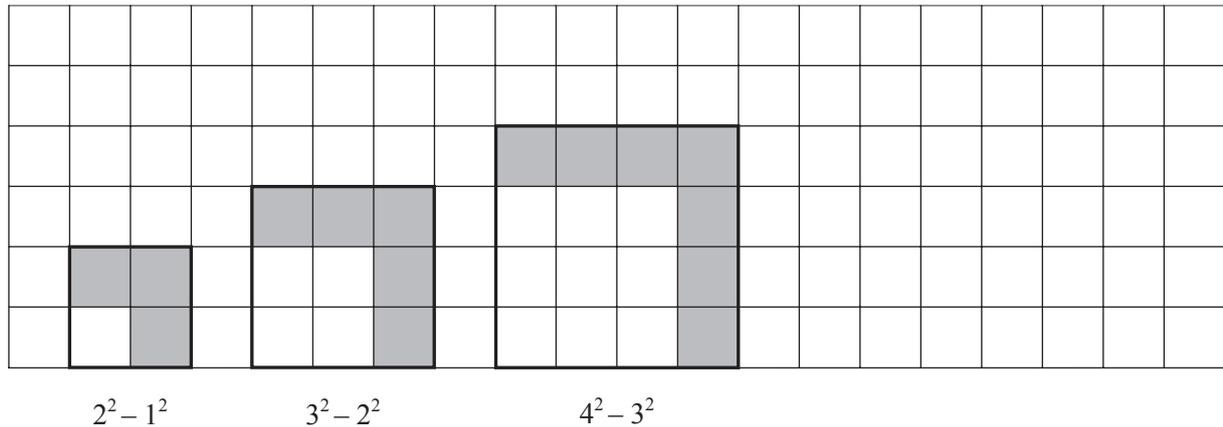


# Formula Sheet

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



1 A sequence of patterns is drawn below.



(a) Draw the pattern for  $5^2 - 4^2$  [1]

(b) Fill in the blanks in the table

|                  |             |         |
|------------------|-------------|---------|
| $2^2 - 1^2 = 4$  | $- 1$       | $= 3$   |
| $3^2 - 2^2 = 9$  | $- 4$       | $= 5$   |
| $4^2 - 3^2 = 16$ | $- 9$       | $= 7$   |
| $5^2 - 4^2 =$    | $___ - ___$ | $= ___$ |

[1]

(c) Use the pattern in your table to find easily the answer to

$$500^2 - 499^2$$

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

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

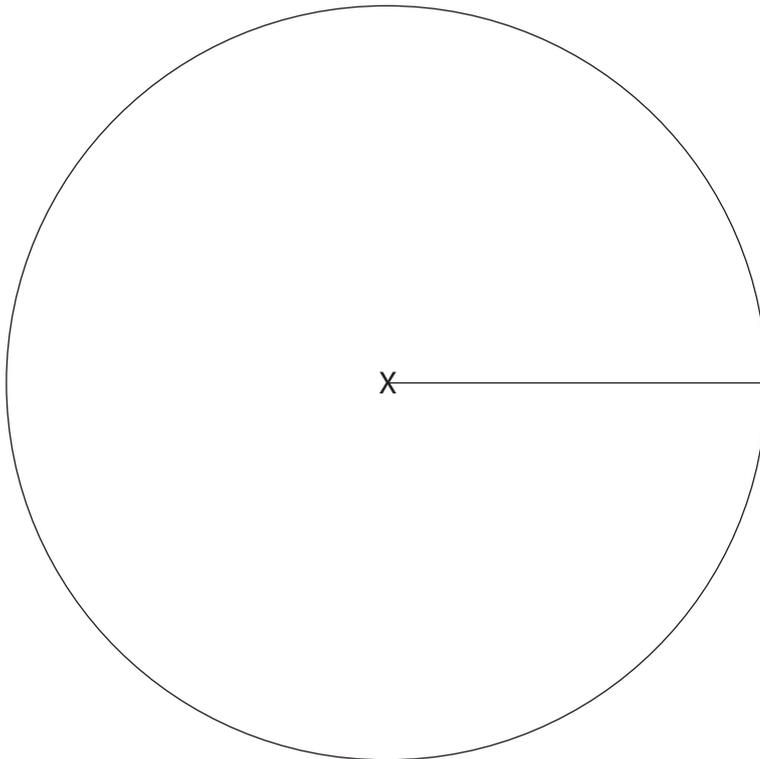




- 4 The colours of the cars passing the school gates were noted during a school day.

| Colour         | Red | Blue | Black | Green | Silver | Other |
|----------------|-----|------|-------|-------|--------|-------|
| Number of cars | 6   | 12   | 2     | 10    | 8      | 2     |

Draw a clearly labelled pie chart for this data.



[4]

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







11 Work out  $5\frac{3}{4} - 2\frac{5}{6}$

Give your answer as a mixed number.

Answer \_\_\_\_\_ [3]

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**THIS IS THE END OF THE QUESTION PAPER**

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



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