



Rewarding Learning

General Certificate of Secondary Education  
January 2010

### Mathematics

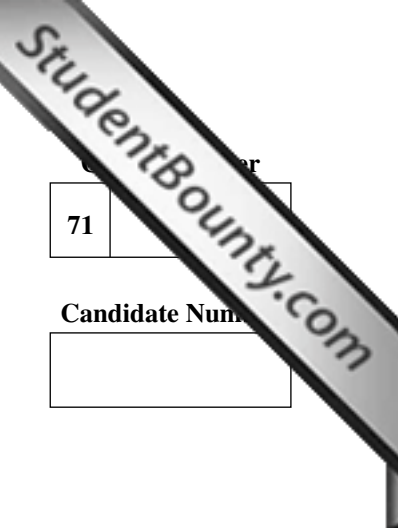


Module N1 Paper 2  
**(With calculator)**  
Foundation Tier  
[GMN12]



GMN12

TUESDAY 12 JANUARY  
**10.30 am – 11.15 am**



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

#### TIME

45 minutes.

#### INSTRUCTIONS TO CANDIDATES

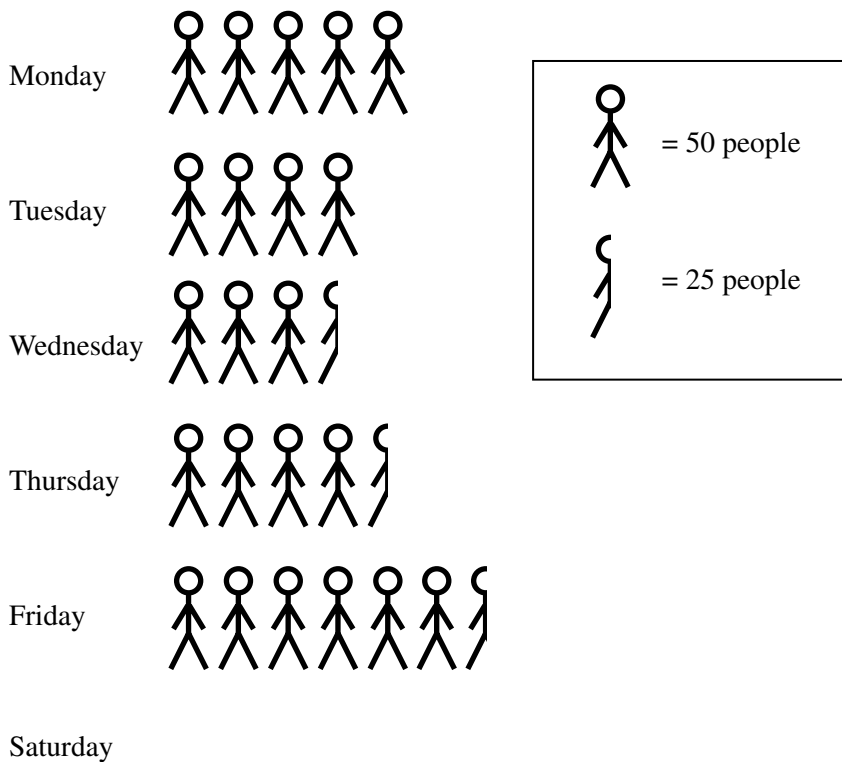
Write your Centre Number and Candidate Number in the spaces provided at the top of this page.  
 Write your answers in the spaces provided in this question paper.  
 Answer **all twelve** questions.  
 Any working should be clearly shown in the spaces provided since marks may be awarded for partially correct solutions.

#### INFORMATION FOR CANDIDATES

The total mark for this paper is 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 calculator, 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	
<b>Total Marks</b>	

1 The pictogram illustrates the number of people attending the cinema in a week.



Examiner Only	
Marks	Remark

(a) How many people attended the cinema on Wednesday?

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

(b) 225 people attended the cinema on Saturday. Complete the pictogram for Saturday. [2]





(c) Draw a sketch of a square-based pyramid.

Examiner Only	
Marks	Remark

[1]





7 (a)



Source: [www.londoninternationalfilms.com/images/SiteImages/CinemaInside.jpg](http://www.londoninternationalfilms.com/images/SiteImages/CinemaInside.jpg)

There are 480 seats in a cinema. 65% of them are in the stalls section.  
How many is this?

Answer \_\_\_\_\_ [2]

(b) Sue has been saving to take some friends to the cinema. If she has £32.40 saved and the tickets cost £5.80 each, how many **friends** can she take?

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

Examiner Only	
Marks	Remark



Examiner Only	
Marks	Remark

8 The figures give the shoe sizes of 20 pairs of shoes sold in a shop one Saturday afternoon.

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

(a) Calculate the mean of the shoe sizes.

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

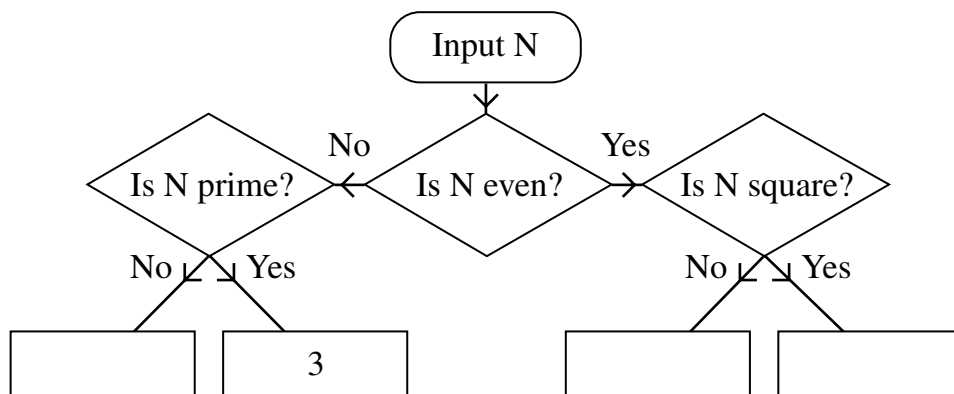
(b) Write down the median shoe size.

Answer \_\_\_\_\_ [2]

(c) The shop wishes to place an order for more shoes. Based on Saturday's sales, which average – mean, mode, or median – do you think they should give greatest consideration to when placing the order? Give a reason for your answer.

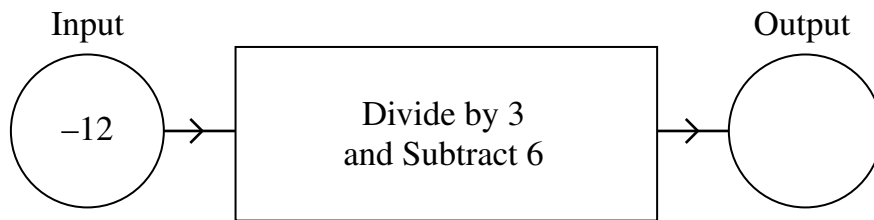
Answer \_\_\_\_\_ because \_\_\_\_\_  
 \_\_\_\_\_ [2]

9



Use the decision tree diagram to sort the integers from 1 to 10  
 The integer  $N = 3$  has already been done. [2]

10 Complete the output for the function machine below.



[1]

11 **Broadband for speed and savings**

<b>Download speed</b>	15 Mb
<b>Wireless router</b>	One off payment £20
<b>Monthly price</b>	£16 per month for first 6 months £22 per month thereafter

Darragh wants Internet Broadband, together with a wireless router, and signs up for the 15 Mb package.

After a period of time he decides to upgrade to a new package. At this stage he has paid £270 altogether. After how many months did he decide to upgrade?

Answer \_\_\_\_\_ [4]

Examiner Only	
Marks	Remark

12 (a)

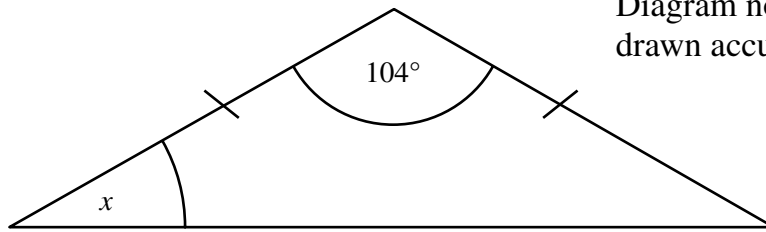


Diagram not  
drawn accurately

Calculate the angle  $x$  in the isosceles triangle.

Answer \_\_\_\_\_  $^\circ$  [2]

(b) Calculate the area of a rectangle measuring 6.8 cm by 2.6 cm.

Answer \_\_\_\_\_  $\text{cm}^2$  [2]

Examiner Only	
Marks	Remark

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

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