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|---------------------|--|--|--|--|--|------------------|--|--|--|--|
| Centre Number       |  |  |  |  |  | Candidate Number |  |  |  |  |
| Surname             |  |  |  |  |  |                  |  |  |  |  |
| Other Names         |  |  |  |  |  |                  |  |  |  |  |
| Candidate Signature |  |  |  |  |  |                  |  |  |  |  |

|                     |      |
|---------------------|------|
| For Examiner's Use  |      |
| Examiner's Initials |      |
| Pages               | Mark |
| 2 – 3               |      |
| 4 – 5               |      |
| 6 – 7               |      |
| 8 – 9               |      |
| 10 – 11             |      |
| 12 – 13             |      |
| 14 – 15             |      |
| TOTAL               |      |



General Certificate of Secondary Education  
Higher Tier  
June 2012

# Mathematics

# 43601H

## Unit 1

Tuesday 19 June 2012 1.30 pm to 2.30 pm

# H

|   |  |
|---|--|
| <p><b>For this paper you must have:</b></p> <ul style="list-style-type: none"> <li>• a calculator</li> <li>• mathematical instruments.</li> </ul> |  |
|---|--|

### Time allowed

- 1 hour

### Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book.

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 54.
- The quality of your written communication is specifically assessed in Questions 7 and 10. These questions are indicated with an asterisk (\*).
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer book.

### Advice

- In all calculations, show clearly how you work out your answer.



J U N 1 2 4 3 6 0 1 H 0 1

WMP/Jun12/43601H

# 43601H

Answer **all** questions in the spaces provided.

- 1** In a game players score points.  
The table shows the number of points Alex scored in 50 games.

| Number of points  | Number of games |
|-------------------|-----------------|
| 0                 | 13              |
| 1                 | 8               |
| 2                 | 6               |
| 3                 | 8               |
| 4                 | 15              |
| <b>Total = 50</b> |                 |

- 1 (a)** To win a game, you have to score 4 points.

What percentage of the 50 games did Alex win?

$$\frac{15}{50} \times 100 = 30\%$$

Answer ..... 30 ..... % (2 marks)

- 1 (b)** Alex says he scored more than 100 points in total.

Show that he is correct.

$$\begin{aligned} \text{Total no. of points} &= 13(0) + 8(1) + 6(2) + 8(3) \\ &+ 15(4) = 104, \text{ which is greater than } 100. \\ \therefore \text{ Alex is correct.} \end{aligned}$$

(3 marks)

