

<b>Candidate Forename</b>		<b>Candidate Surname</b>	
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<b>Centre Number</b>						<b>Candidate Number</b>				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**B273A**

**MATHEMATICS C  
(GRADUATED ASSESSMENT)**

**MODULE M3 – SECTION A**

**TUESDAY 23 JUNE 2009: Morning**

**DURATION: 30 minutes**

**SUITABLE FOR VISUALLY IMPAIRED CANDIDATES**

**Candidates answer on the question paper.**

**OCR SUPPLIED MATERIALS:**

**None**

**OTHER MATERIALS REQUIRED:**

**Geometrical instruments**

**Tracing paper (optional)**

**WARNING**

**No calculator can be used for  
Section A of this paper.**

**READ INSTRUCTIONS OVERLEAF**

## **INSTRUCTIONS TO CANDIDATES**

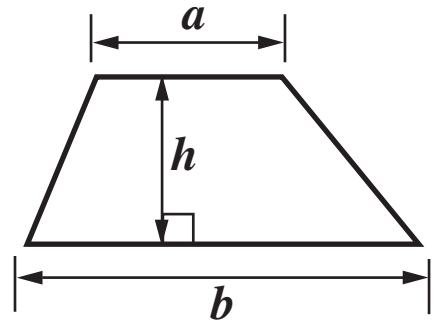
- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**
- **Show your working. Marks may be given for a correct method even if the answer is incorrect.**
- **Answer ALL the questions.**
- **Write your answer to each question in the space provided, however additional paper may be used if necessary.**

## **INFORMATION FOR CANDIDATES**

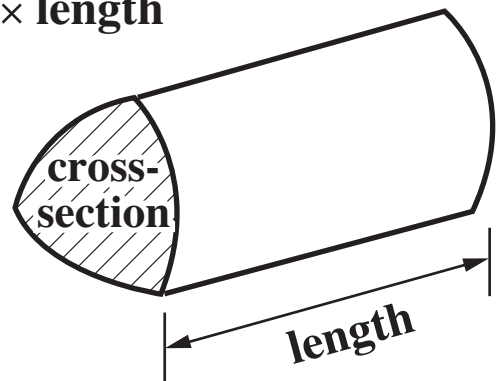
- **The number of marks is given in brackets [ ] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

## Formulae Sheet

$$\text{Area of trapezium} = \frac{1}{2} (a + b)h$$



$$\text{Volume of prism} = (\text{area of cross-section}) \times \text{length}$$



**1 Work out.**

**(a)  $1.5 \times 3$**

**[1 mark]**

**(a)** \_\_\_\_\_

**(b)  $2.75 \times 10$**

**[1 mark]**

**(b)** \_\_\_\_\_

**(c)  $9.6 \div 4$**

**[1 mark]**

**(c)** \_\_\_\_\_

**(d)  $\frac{1}{5}$  of 40**

**[1 mark]**

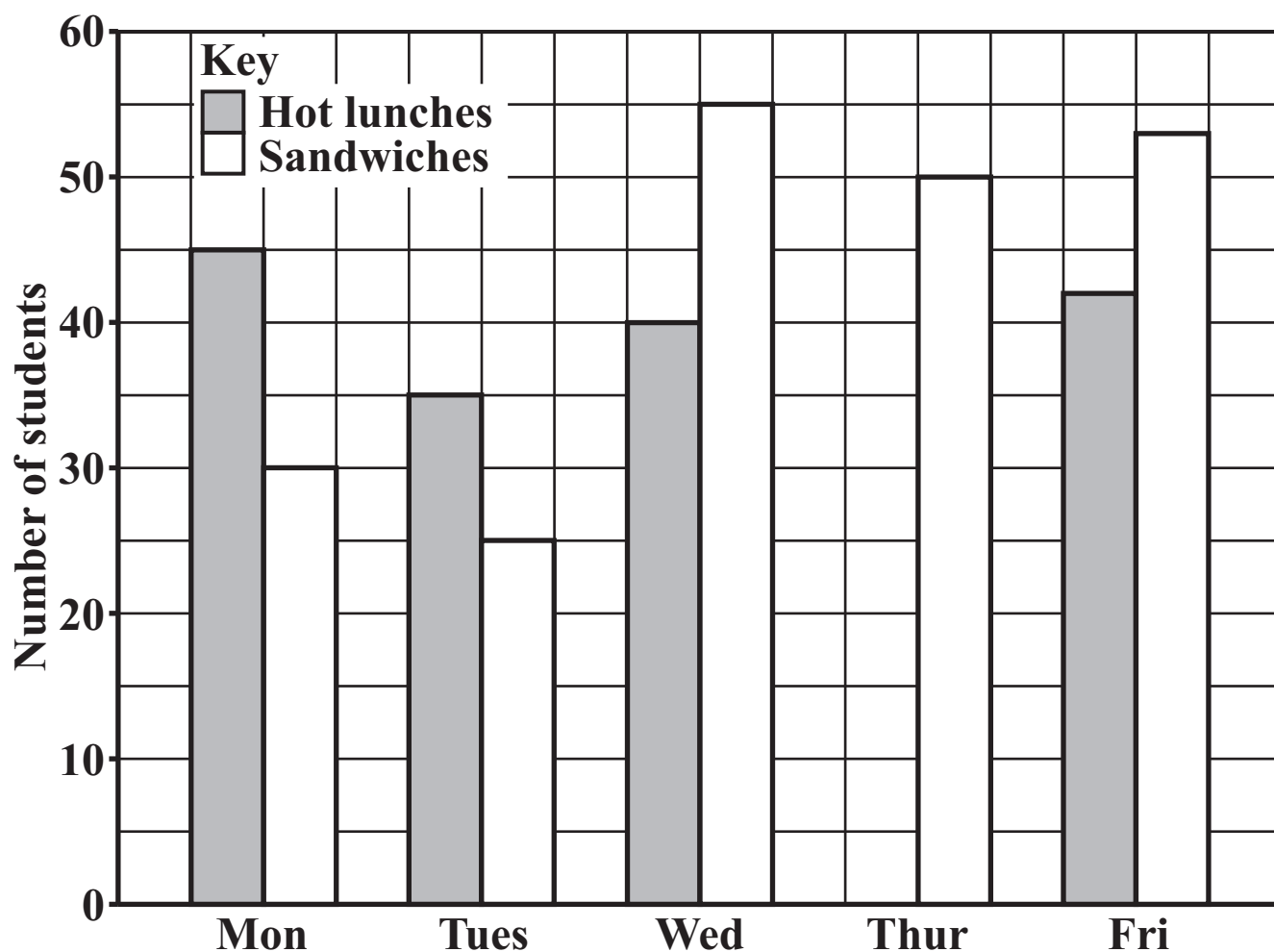
**(d)** \_\_\_\_\_

**(e)  $(7 + 8) \div (2 + 3)$**

**[2 marks]**

**(e)** \_\_\_\_\_

**2 This bar chart shows the numbers of students who ate hot lunches and ate sandwiches at a school on each of five days.**



**(a) (i) How many students ate a hot lunch on Wednesday?  
[1 mark]**

**(a)(i)** \_\_\_\_\_

**(ii) On Friday, how many MORE students ate sandwiches than ate a hot lunch?  
[1 mark]**

**(ii)** \_\_\_\_\_

**(iii) On Thursday, 25 students ate a hot lunch.**

**Show this on the bar chart.**

**[1 mark]**

**(b) This list shows how much 5 students spent on their lunches.**

**£1·30    £2·90    £1·56    £2·39    £2·48**

**Work out the range of these amounts.**

**[1 mark]**

**(b) £ \_\_\_\_\_**

**(c) Mr Brown buys 100 sandwiches for a school trip.  
The sandwiches cost £2·68 each.**

**Work out  $100 \times 2·68$ .**

**[1 mark]**

**(c) \_\_\_\_\_**

**(d) Lunchtime starts at 12 45 and ends 50 minutes later.**

**(i) At what time does lunchtime end?  
[1 mark]**

**(d)(i) \_\_\_\_\_**

**(ii) Tim and his friends play football at lunchtime.  
They start playing at 12 55 and stop playing at 13 20.**

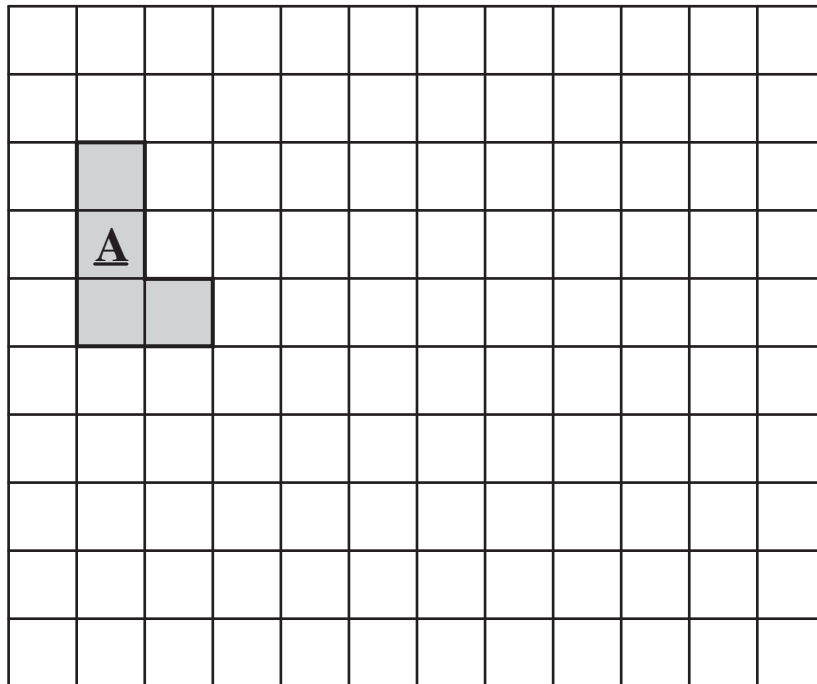
**For how long do they play football?  
[1 mark]**

**(ii) \_\_\_\_\_ minutes**



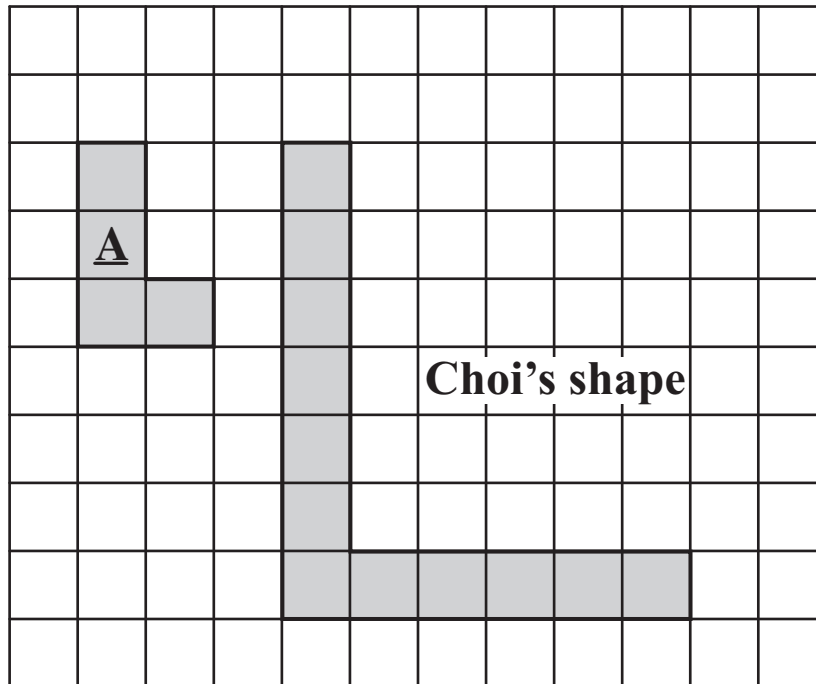
**3** Shape A has been drawn on this grid.

**(a)** On the grid, draw an enlargement of shape A using scale factor 2.



**[2 marks]**

- (b) Choi has drawn an enlargement of shape A on this grid, using scale factor 3.



**Her enlargement is wrong.**

**Write down two mistakes she has made.**

1 \_\_\_\_\_  
[1 mark]

2 \_\_\_\_\_  
[1 mark]

- 4 **Helen is going to the theatre.  
She sees this poster.**

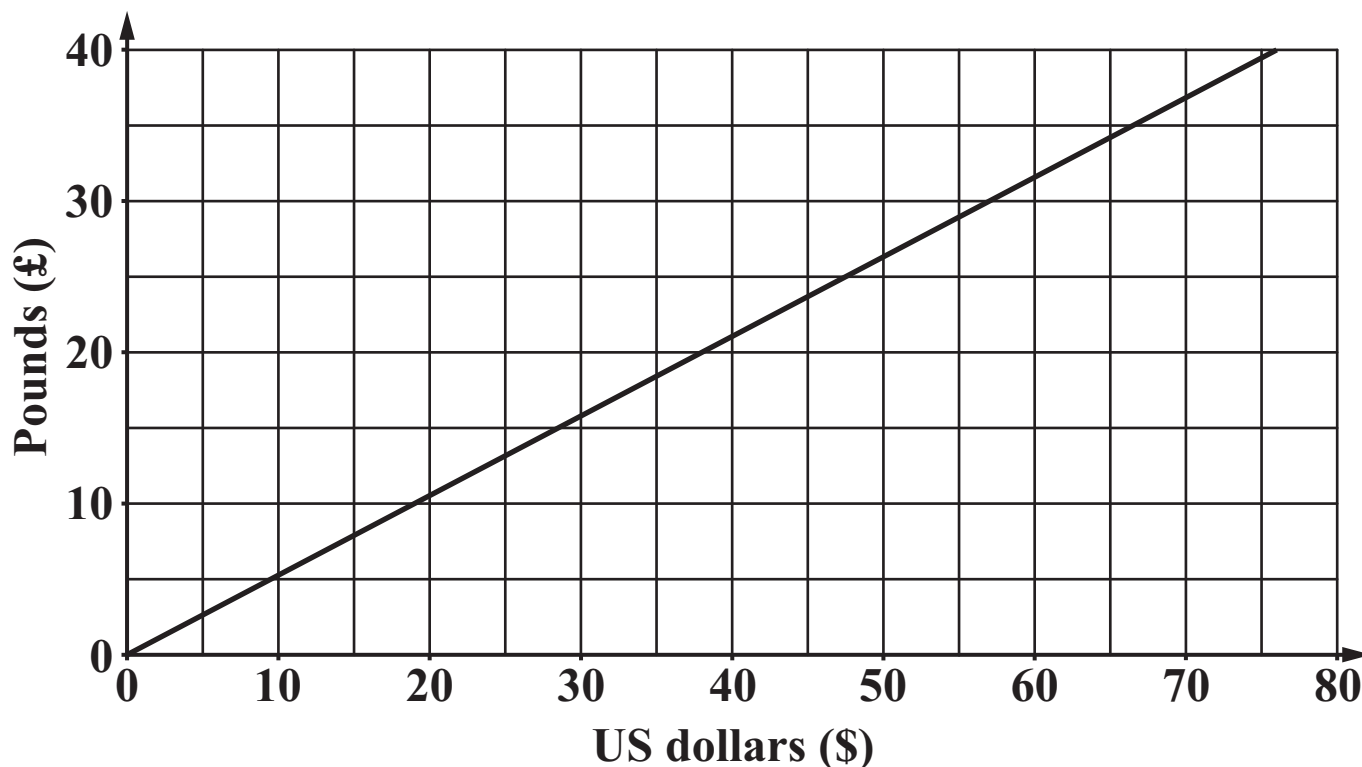
<p style="text-align: center;"><b>Theatre Tickets</b></p> <p><b>Adult — £50</b></p> <p><b>Child — £30</b></p> <p style="text-align: center;"><b>BUY ONLINE – 20% OFF THESE PRICES</b></p>
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**Helen buys 2 adult tickets and 1 child ticket online.**

**How much does she pay?  
You must show your working.  
[4 marks]**

£ \_\_\_\_\_

**5 This is a graph for converting US dollars (\$) to pounds (£).**



**(a) Zahira changes £20 into dollars.**

**Use the graph to find how many dollars (\$) she receives for £20.**

**[1 mark]**

**(a) \$** \_\_\_\_\_

**(b) Heidi is on holiday in the USA.**

**(i) She sees a bottle of perfume costing 65 dollars (\$65).**

**Use the conversion graph to find how much \$65 is in pounds.**

**[1 mark]**

**(b)(i) £** \_\_\_\_\_

- (ii) Heidi also sees some trainers.  
She knows they cost £60 in the UK.**

**How much is £60 in dollars (\$)?**

**Explain how you could use the graph to work this out.**

**Cost \$ \_\_\_\_\_ because \_\_\_\_\_**

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**[2 marks]**

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