Candidate Forename		Candidate Surname	

Centre Number						Candidate Number				

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

DC (LEO/CGW) OV90824 12681/1

INSTRUCTIONS TO CANDIDATES

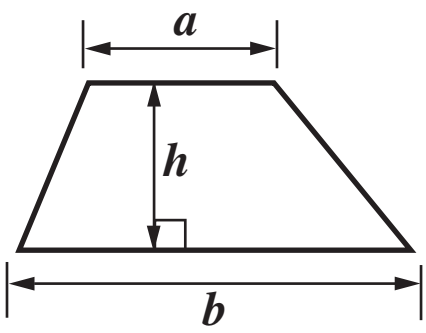
- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**
- **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

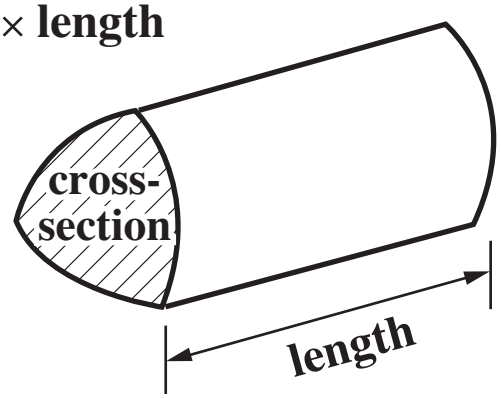
- **The number of marks is given in brackets [ ] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

Formulae Sheet

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



Volume of prism = (area of cross-section) × length



1 Work out.

(a) 1·5 × 3

(a) _____

[1 mark]

(b) 2·75 × 10

(b) _____

[1 mark]

(c) 9·6 ÷ 4

(c) _____

[1 mark]

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

(d) _____

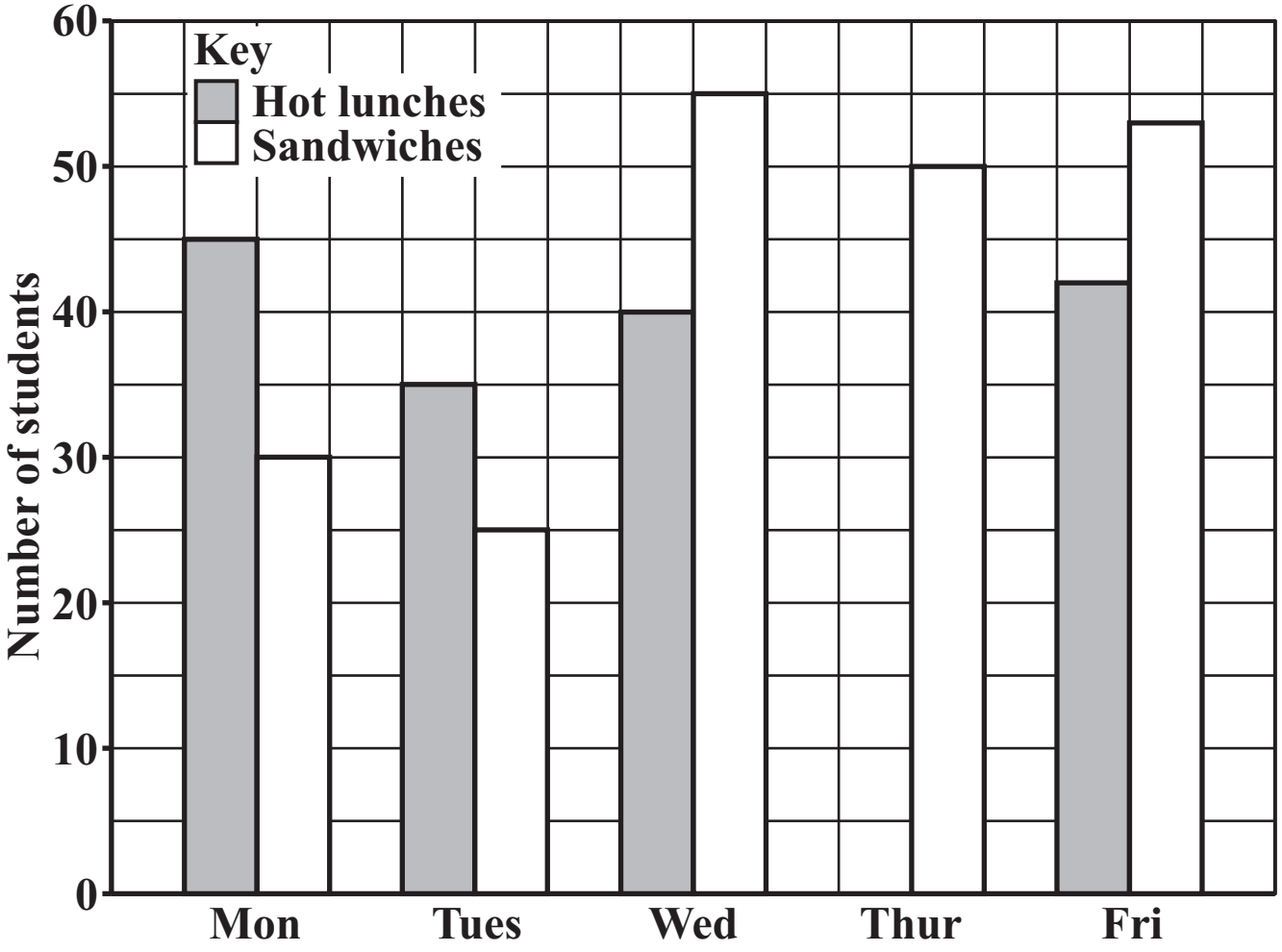
[1 mark]

(e) (7 + 8) ÷ (2 + 3)

(e) _____

[2 marks]

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 <u>MORE</u> 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 × 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) _____

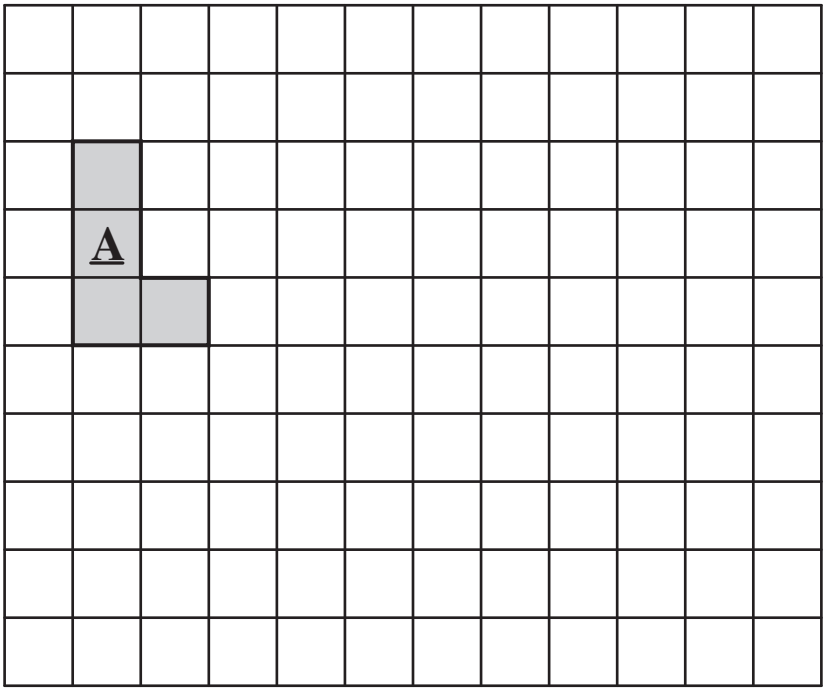
(ii) Tim and his friends play football at lunchtime.
They start playing at 12 55 and stop playing at 13 20.

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

(ii) _____ minutes

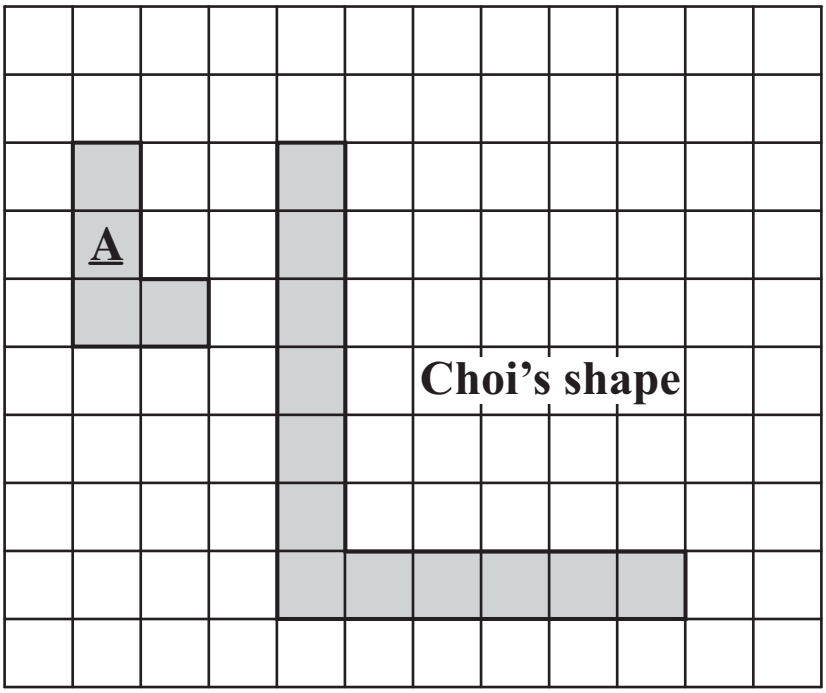
3 Shape A has been drawn on this grid.

(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.

Theatre Tickets

Adult — £50

Child — £30

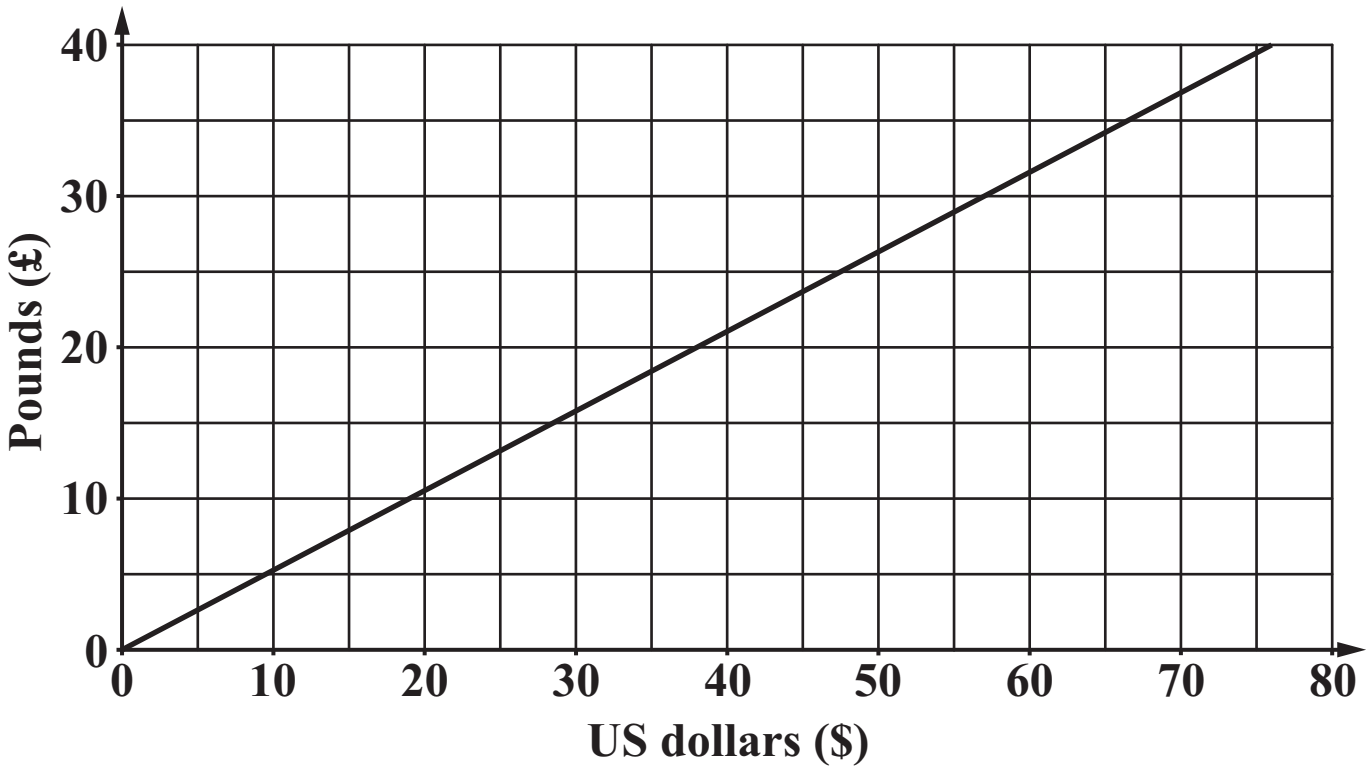
BUY ONLINE –
20% OFF THESE PRICES

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 _____

_____

[2 marks]

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