

Candidate forename						Candidate surname					
Centre number						Candidate number					

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION

B275B

MATHEMATICS C
(GRADUATED ASSESSMENT)

MODULE M5 – SECTION B

TUESDAY 1 MARCH 2011: 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)
Pie chart scale (optional)
Electronic calculator

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

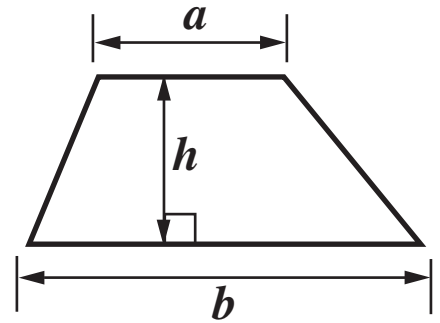
- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**
- **Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).**
- **Show your working. Marks may be given for a correct method even if the answer is incorrect.**
- **Answer ALL the questions.**

INFORMATION FOR CANDIDATES

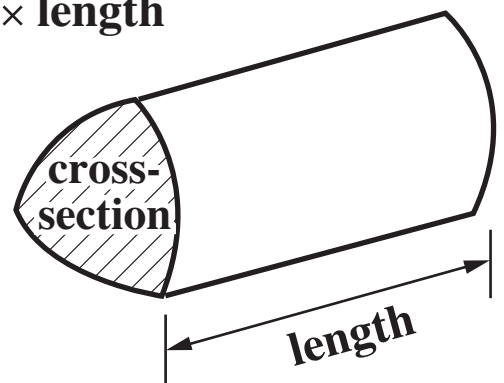
- **The number of marks is given in brackets [] at the end of each question or part question.**
- **Section B starts with question 9.**
- **You are expected to use a calculator in Section B of this paper.**
- **The total number of marks for this Section is 25.**

Formulae Sheet

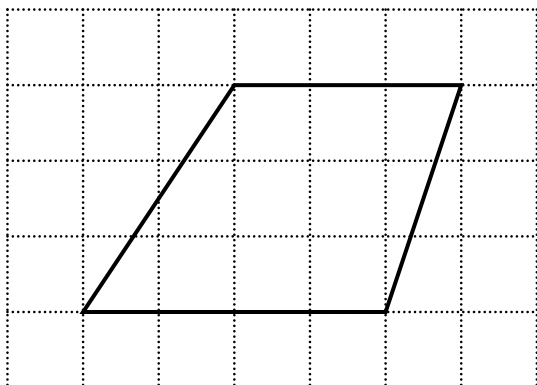
Area of trapezium = $\frac{1}{2} (a + b)h$



Volume of prism = (area of cross-section) \times length



- 9 Saima tried to draw a parallelogram.
This is her shape.**

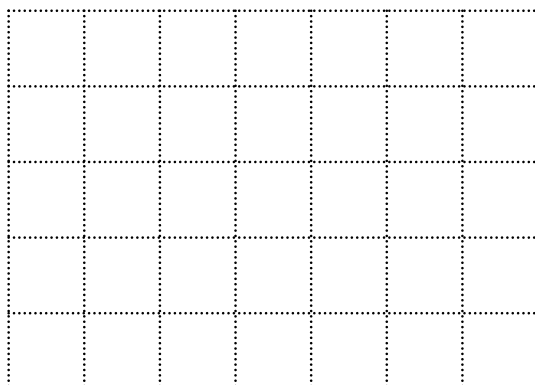


- (a) Explain why this is not a parallelogram. [1 mark]**

- (b) What is the name of the quadrilateral that Saima has drawn? [1 mark]**

(b) _____

- (c) Draw a parallelogram on the grid below. [1 mark]**



- 10 (a) Tony's Take Away sells pizzas.
Customers choose TWO toppings for their pizza from
the list below.**

<u>Toppings</u>
Ham (H)
Mushroom (M)
Peppers (P)

**They can choose two different toppings or have both
the same.**

**How many combinations of toppings are available?
Show how you worked it out. [2 marks]**

(a) _____

(b) One lunchtime, 48 out of Tony's 80 customers are students.

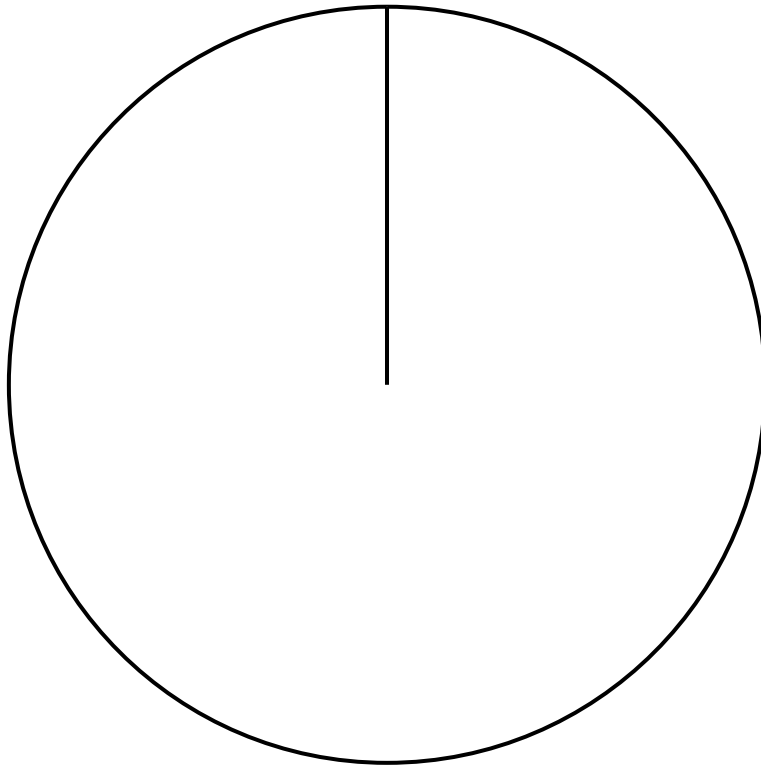
**What percentage of his customers are students?
[2 marks]**

(b) _____ %

- (c) **One evening, Tony sells 180 meals.
He records the number of each type he sells.**

Pizza	90
Chicken	45
Pasta	27
Burger	18

Draw a pie chart to illustrate the data. [4 marks]



11 (a) Simplify.

(i) $4t + 2t - 3t$
[1 mark]

(a)(i) _____

(ii) $3a + 2b - a + 5b$
[2 marks]

(ii) _____

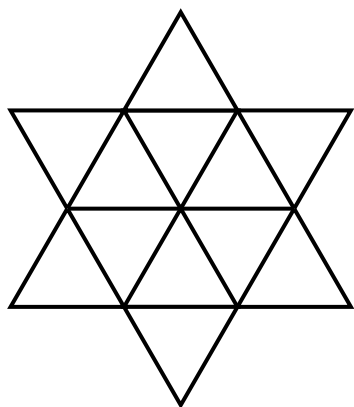
(b) Use the formula

$$e = 5c - 3d$$

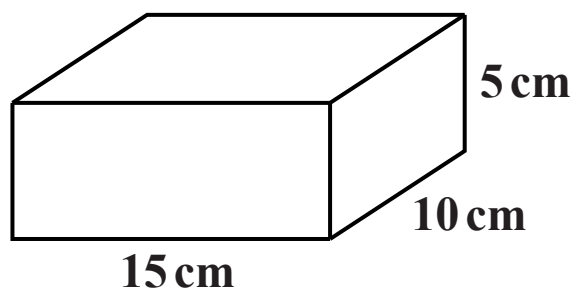
to find e when $c = 2.5$ and $d = 4$.
[2 marks]

(b) _____

- 12 Shade SIX of the small triangles in the shape below to make a pattern with rotation symmetry of order 3. [2 marks]**



13



Find the volume of this cuboid.
Give the units of your answer. [3 marks]

- 14 Andrea buys a new TV.**
The cash price of the TV is £650.
Andrea buys the TV on credit.

CASH PRICE	CREDIT TERMS
£650	15% deposit plus 24 monthly payments of £25

How much MORE than the cash price does Andrea pay?
[4 marks]

£ _____

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