

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

B271A

**MATHEMATICS C
(GRADUATED ASSESSMENT)**

MODULE M1 – SECTION A

TUESDAY 21 JUNE 2011: Afternoon

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

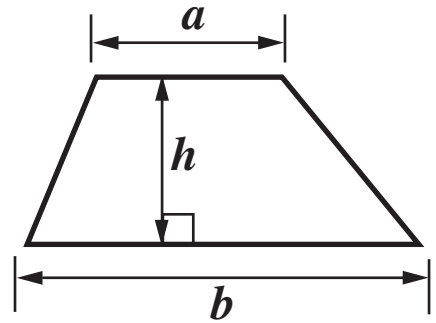
- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**
- **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

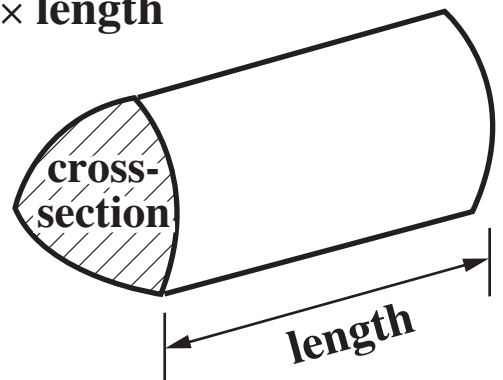
- **The number of marks is given in brackets [] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

FORMULAE SHEET

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



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



1 Work out.

(a) $43 + 21 + 8$

(a) _____ [1]

(b) $48 - 25$

(b) _____ [1]

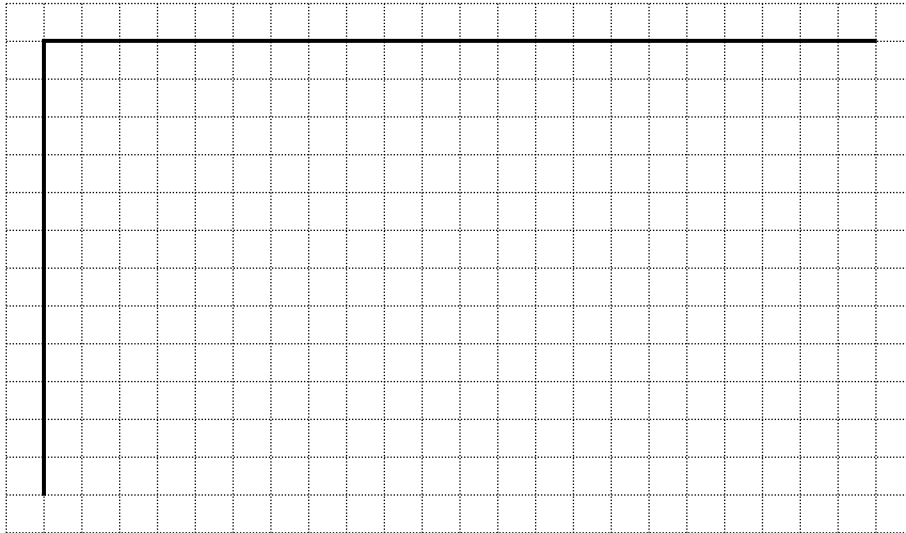
(c) 8×6

(c) _____ [1]

(d) $24 \div 3$

(d) _____ [1]

2 Colleen has drawn these two sides of a rectangle.



(a) Complete Colleen's rectangle. [1]

(b) Measure the length and the width of the rectangle.

(b) Length _____ cm [1]

Width _____ cm [1]

(c) Work out the perimeter of the rectangle.

(c) _____ cm [2]

- 3 Aaron and Karen are playing a game called **FIZZ BUZZ**. They turn over a card. Aaron calls out **FIZZ** when the number is in the five times table. Karen calls out **BUZZ** when the number is in the two times table.

These cards have been turned over.

- (a) Write **F** under the cards where **FIZZ** is called out. Write **B** under the cards where **BUZZ** is called out.

15

12

22

25

[2]

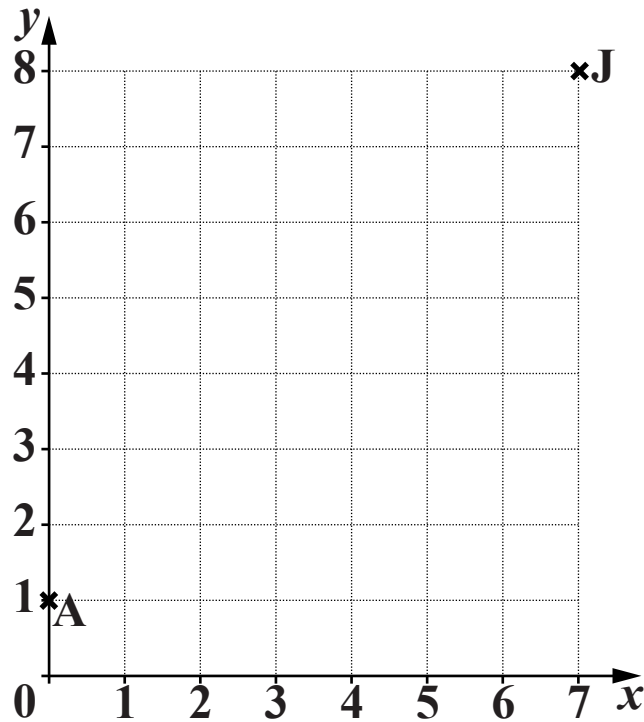
- (b) A new card is turned over and both Aaron and Karen call out.

?

Write down a number that could be on the card.

(b) _____ [2]

4 This grid has the points A(0, 1) and J(7, 8) plotted on it.



(a) (i) Draw a straight line joining point A to point J.

Mark another point on your line.

Label it P.

[1]

(ii) Write down the coordinates of point P.

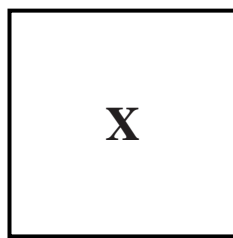
(a)(ii) P (_____ , _____) [1]

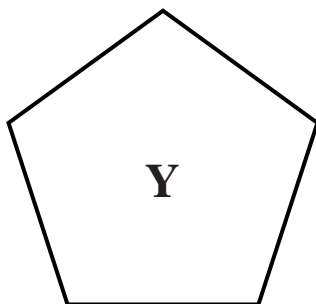
(b) Plot the point (5, 2).

Label it G.

[1]

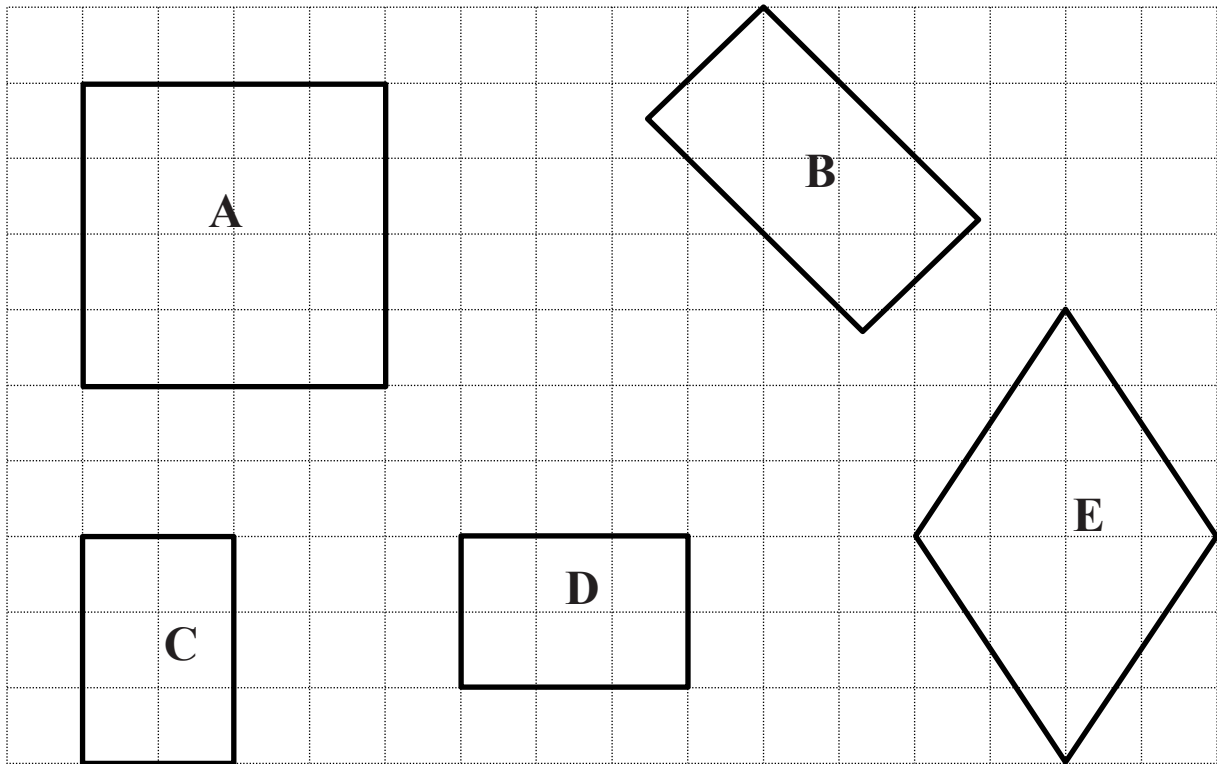
- 5 (a) Write the correct mathematical name under each of these REGULAR shapes.**





[2]

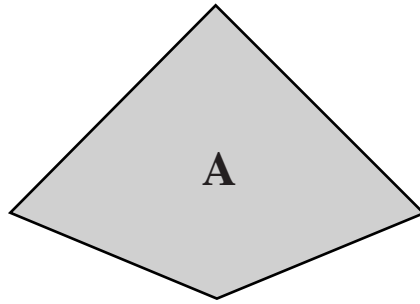
(b) Which of these shapes is an enlargement of shape X in part (a)?



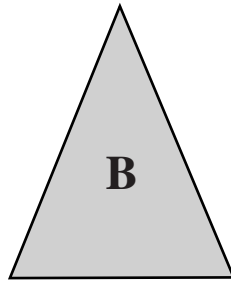
(b) _____ **[1]**

6 A construction kit contains some of these shapes.

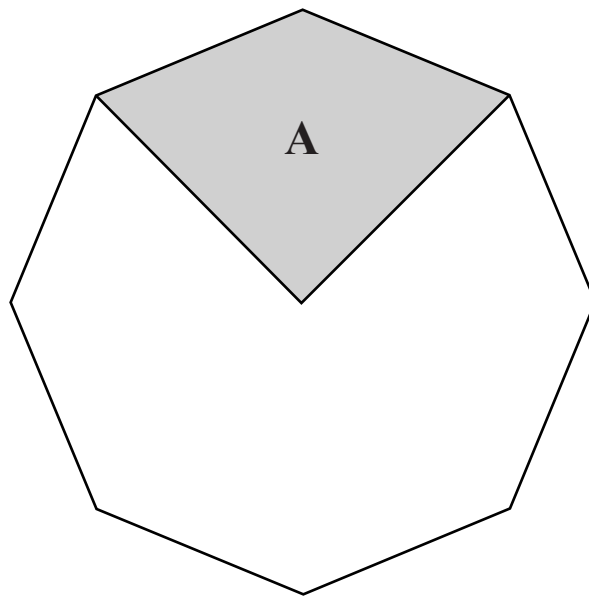
A shape



B shape



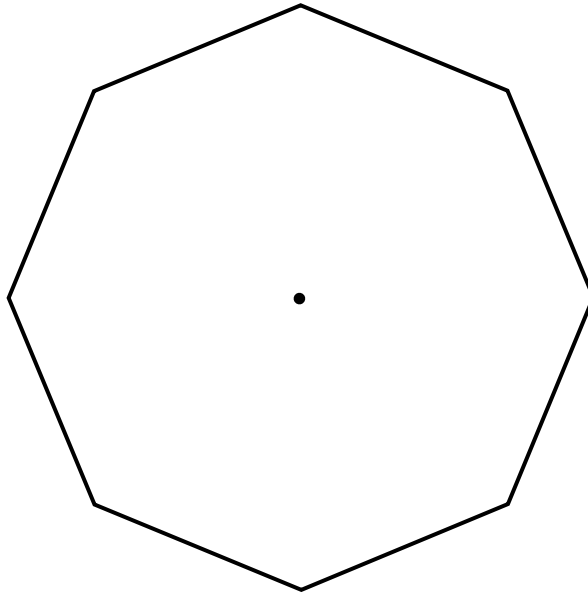
(a) What fraction of the octagon is one A shape?



(a) _____ [1]

- (b) (i) A regular octagon is made using BOTH A shapes AND B shapes.

Use the diagram to show one way this can be done.



[1]

- (ii) What fraction of your octagon is made of A shapes?

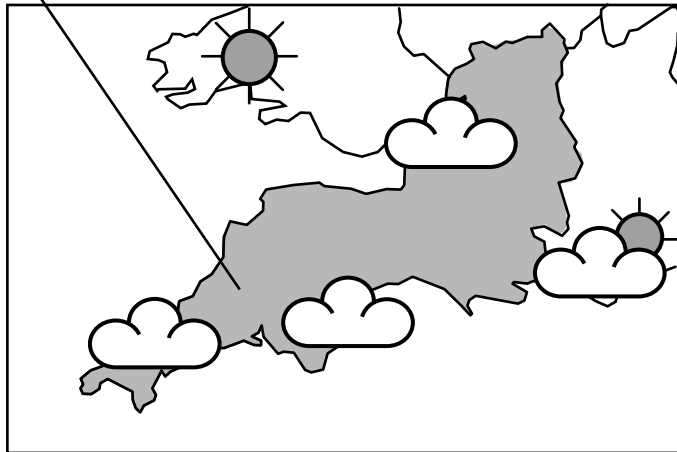
(b)(ii) _____ [1]

- (iii) What fraction of your octagon is made of B shapes?

(iii) _____ [1]

- 7 Here is a weather map for the West Country area of the UK. It shows the weather forecast for 9am on Tuesday.

West Country



Key to symbols

Heavy cloud	
Light cloud	
Sunny	
Sunny intervals and clouds	

- (a) Choose the best word from this list to complete the sentence below.

certain likely evens unlikely impossible

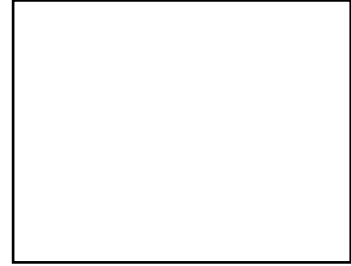
It is _____ that there will be

SOME sun in the West Country at 9am on Tuesday.

[1]

(b) The forecasters think that there will be no cloud over the West Country on Friday.

Draw, in the box, the symbol they should put on the weather map to show this.



[1]

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