

Candidate forename						Candidate surname					
Centre number						Candidate number					

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

B276A

**MATHEMATICS C
(GRADUATED ASSESSMENT)**

MODULE M6 – SECTION A

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)

WARNING

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

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

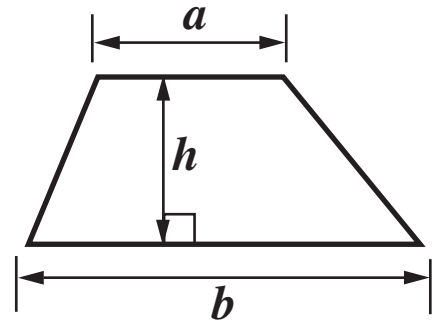
- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**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

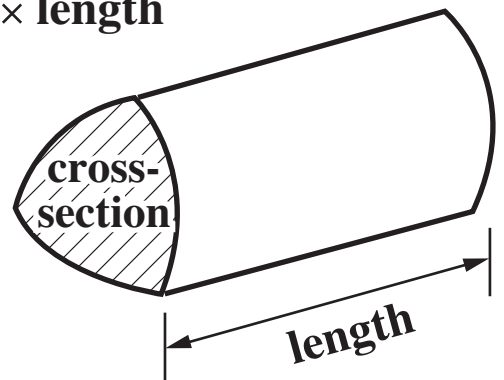
- **The number of marks is given in brackets [] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

Formulae Sheet

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



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



1 Work out.

(a) 0.3×0.3
[1 mark]

(a) _____

(b) $\frac{2}{5} + \frac{3}{10}$
[2 marks]

(b) _____

(c) $\frac{6}{7} \times \frac{1}{4}$

**Give your answer as a fraction in its simplest form.
[2 marks]**

(c) _____

(d) $\frac{5}{8}$ as a decimal
[2 marks]

(d) _____

2 (a) Solve.

$$4x + 6 = 20$$

[2 marks]

(a) _____

(b) This equation is part of Alison's homework.

$$5(2x - 10) = 30$$

Here is Alison's answer.

$$5(2x - 10) = 30$$

$$10x - 10 = 30$$

$$10x = 40$$

$$x = 4$$

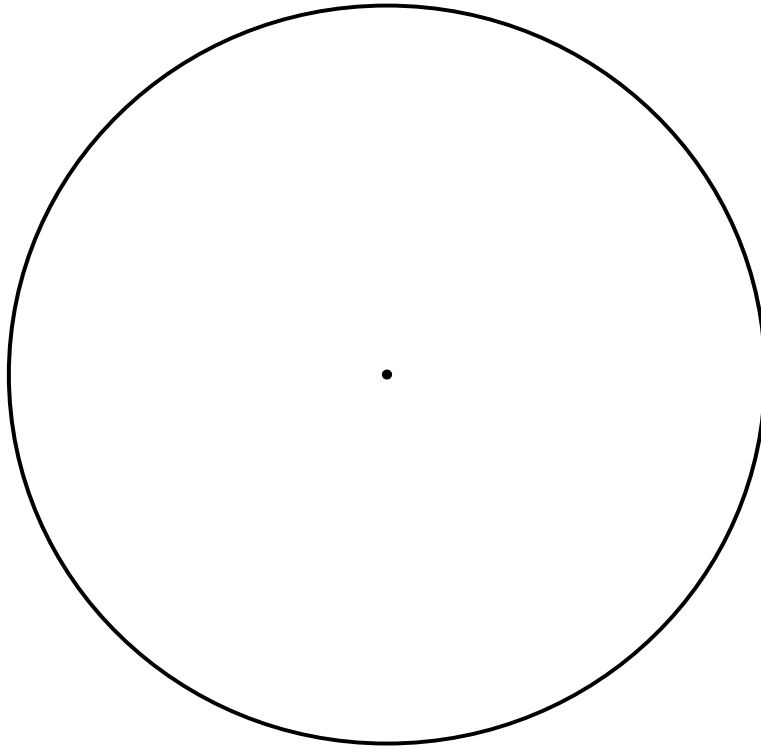
Circle the error and explain why Alison's answer is not correct.

You do not need to work out the correct answer to the equation. [2 marks]

- 3 Lois and Nicola are having an argument.
The probability that Lois is right is 0.6.
The probability that Nicola is right is 0.12.
They cannot both be right.**

**What is the probability that neither of them is right?
[2 marks]**

- 4 Construct a regular pentagon.**
The vertices of the pentagon should be on the circumference of the circle. [3 marks]



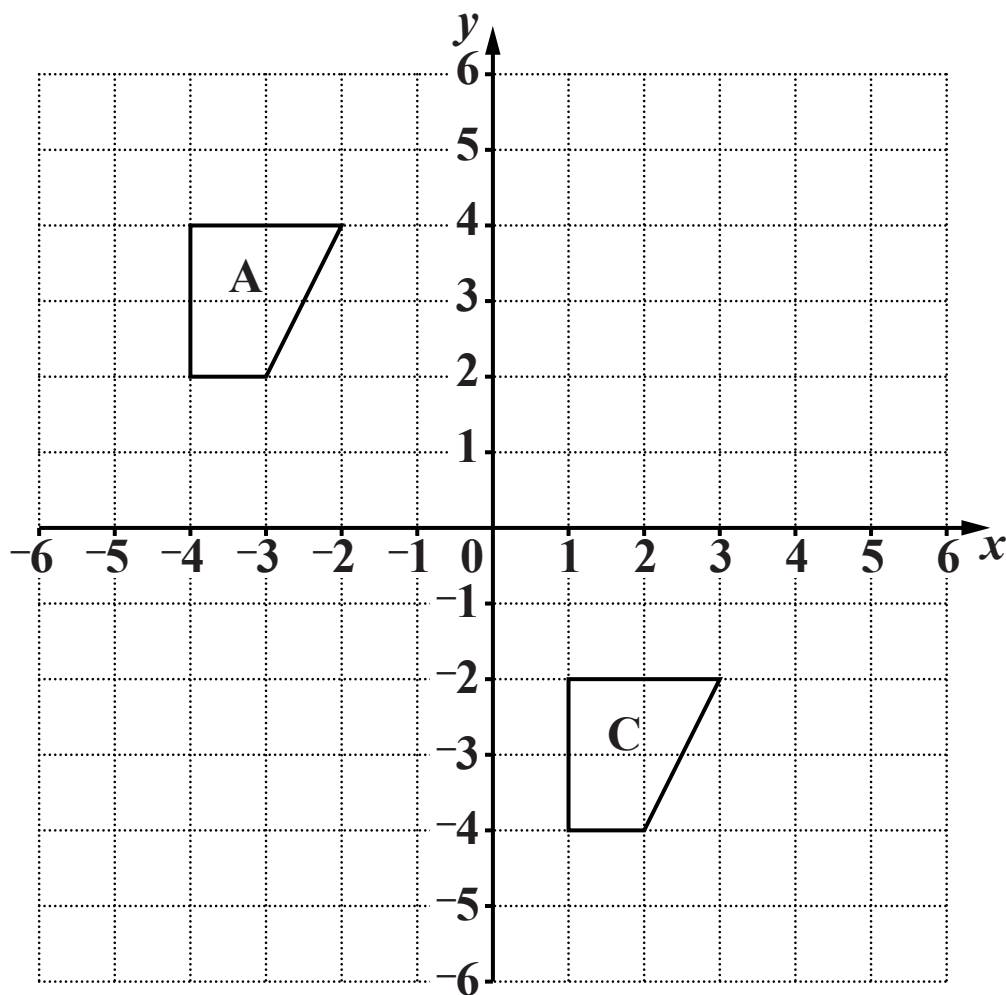
- 5 Rice costs £3·90 a kilogram.
Colin buys 2·7 kg of rice.
He pays with a £20 note.**

How much change should he receive?

YOU MUST SHOW YOUR WORKING. [4 marks]

£ _____

6 Shapes A and C are shown on the grid below.



- (a) Rotate shape A 90° clockwise about the origin.
Label the image B. [3 marks]
- (b) Describe fully the SINGLE transformation which maps
shape A onto shape C. [2 marks]

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