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OCR
RECOGNISING ACHIEVEMENT

M6

GENERAL CERTIFICATE OF SECONDARY EDUCATION
MATHEMATICS C (GRADUATED ASSESSMENT) B276A
MODULE M6 – SECTION A

OCE/25774

Candidates answer on the question paper.

OCR supplied materials:
None

Other materials required:
- Geometrical instruments
- Tracing paper (optional)

Tuesday 1 March 2011
Morning

Duration: 30 minutes

B276A

Candidate forename		Candidate surname	

Centre number						Candidate number				

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. 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.
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

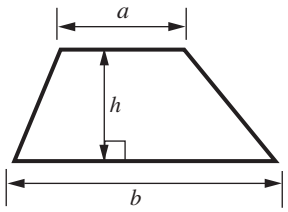
- The number of marks is given in brackets **[ ]** at the end of each question or part question.
- The total number of marks for this Section is **25**.
- This document consists of **8** pages. Any blank pages are indicated.

WARNING

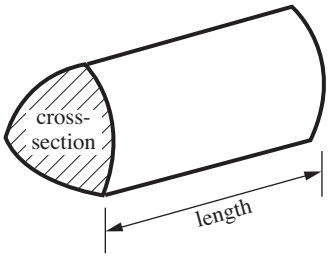
No calculator can be used for Section A of this paper

Formulae Sheet

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



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



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1 Work out.

(a) $0{\cdot}3 \times 0{\cdot}3$

(a) ..... **[1]**

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

(b) ..... **[2]**

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

Give your answer as a fraction in its simplest form.

(c) ..... **[2]**

(d) $\frac{5}{8}$ as a decimal

(d) ..... **[2]**

2 **(a)** Solve.

$4x + 6 = 20$

(a) ..... **[2]**

(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.

.....

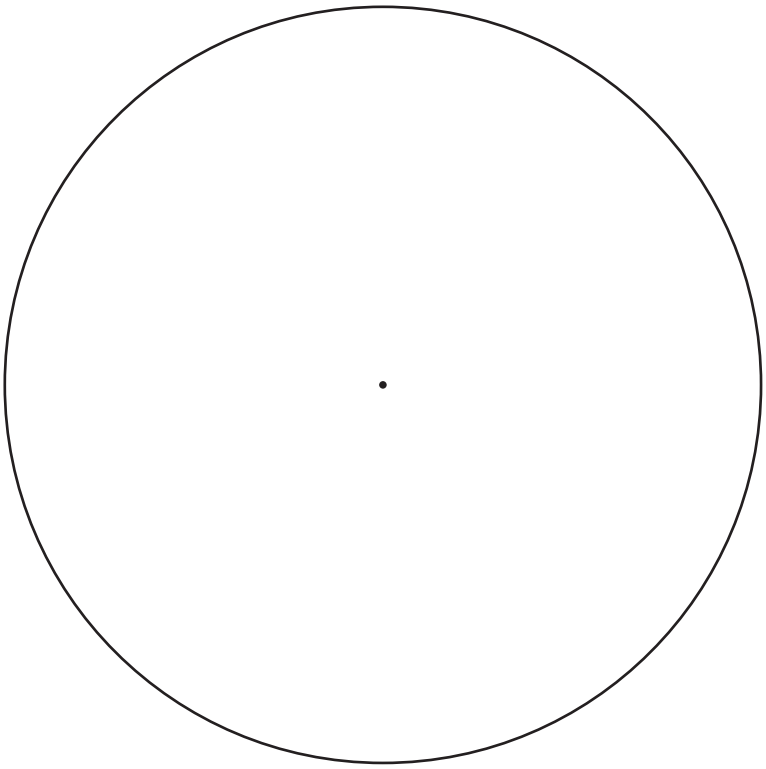
..... **[2]**

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]**

4 Construct a regular pentagon.
The vertices of the pentagon should be on the circumference of the circle.



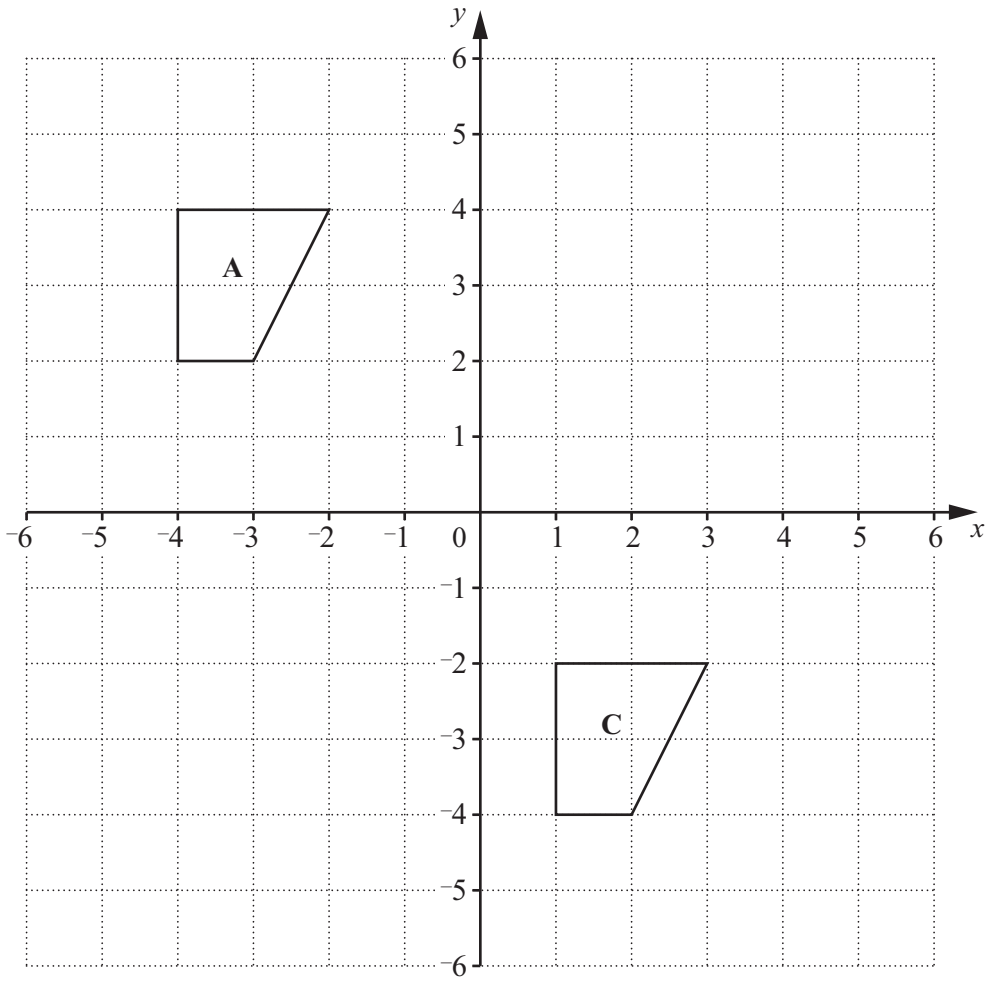
[3]

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]**

6



(a) Rotate shape **A** 90° clockwise about the origin.
Label the image **B**. **[3]**

(b) Describe fully the **single** transformation which maps shape **A** onto shape **C**.

.....

..... **[2]**

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