

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**

B273A

**MATHEMATICS C
(GRADUATED ASSESSMENT)**

MODULE M3 – SECTION A

THURSDAY 21 JANUARY 2010: 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

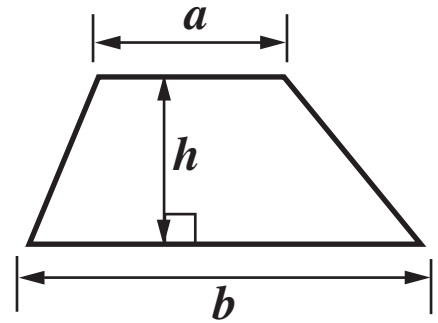
- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**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

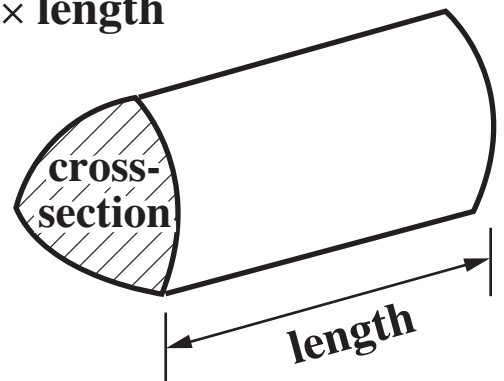
- **The number of marks is given in brackets [] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

Formulae Sheet

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



$$\text{Volume of prism} = (\text{area of cross-section}) \times \text{length}$$



1 Calculate.

(a) £1.05 + £5.95
[1 mark]

(a) £ _____

(b) Half of £20
[1 mark]

(b) £ _____

(c) 5^2
[1 mark]

(c) _____

(d) 20% of £50
[1 mark]

(d) £ _____

(e) 2.75×10
[1 mark]

(e) _____

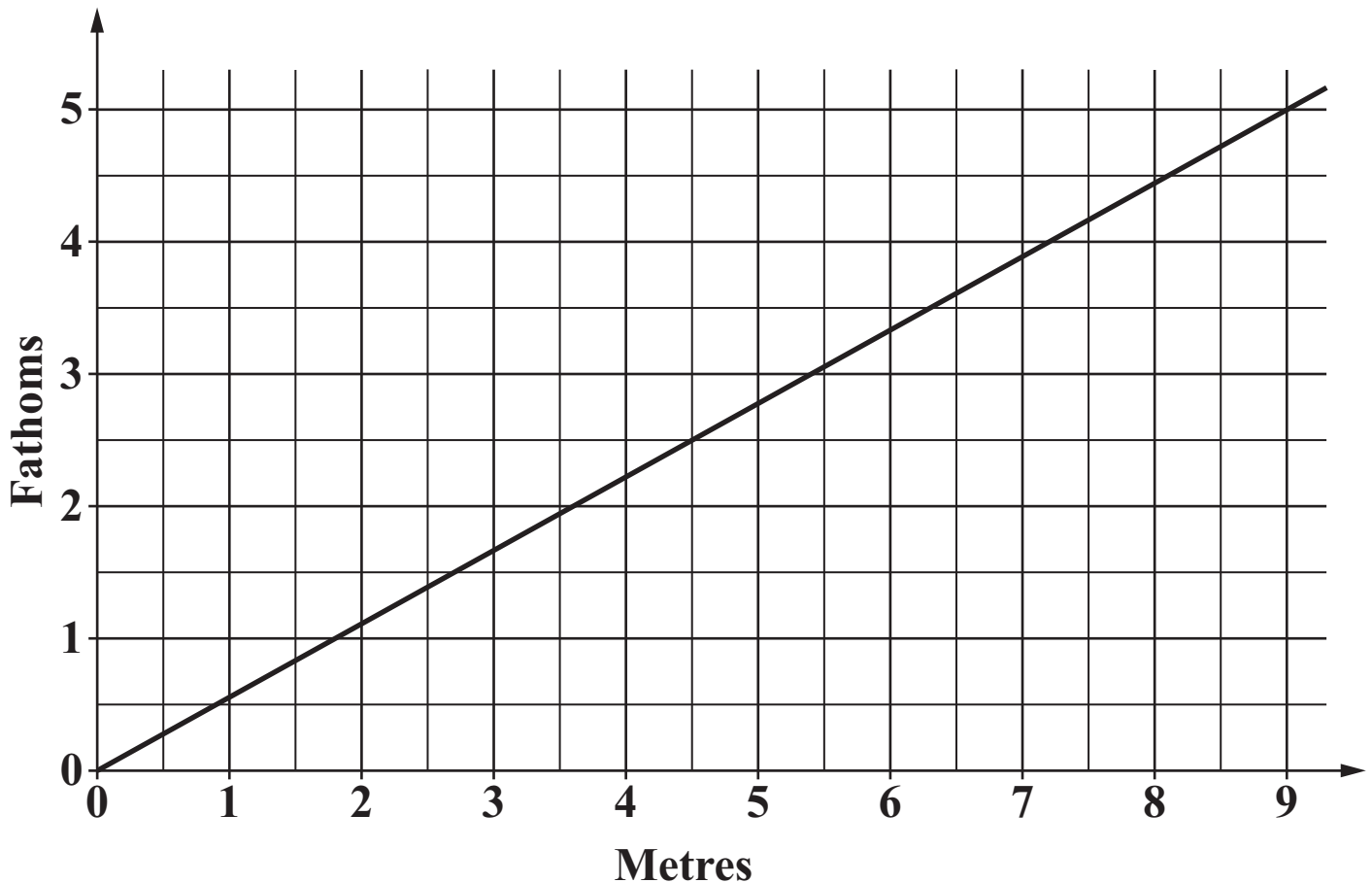
(f) $4.9 \div 10$
[1 mark]

(f) _____

(g) $(4 + 2) \div (4 - 2)$
[2 marks]

(g) _____

- 2 (a) About a thousand years ago the Anglo-Saxons used fathoms to measure length.
This graph converts between fathoms and metres.



- (i) How many fathoms are there in 9 metres?
[1 mark]

(a)(i) _____ fathoms

- (ii) Harald was a Viking king.
He tried to invade England in 1066.
He was buried in one fathom of English earth.

What is 1 fathom in metres?
[1 mark]

(ii) _____ m

- (iii) How many metres are there in 10 fathoms?
Explain how you worked out your answer.
[2 marks]**

_____ metres because _____

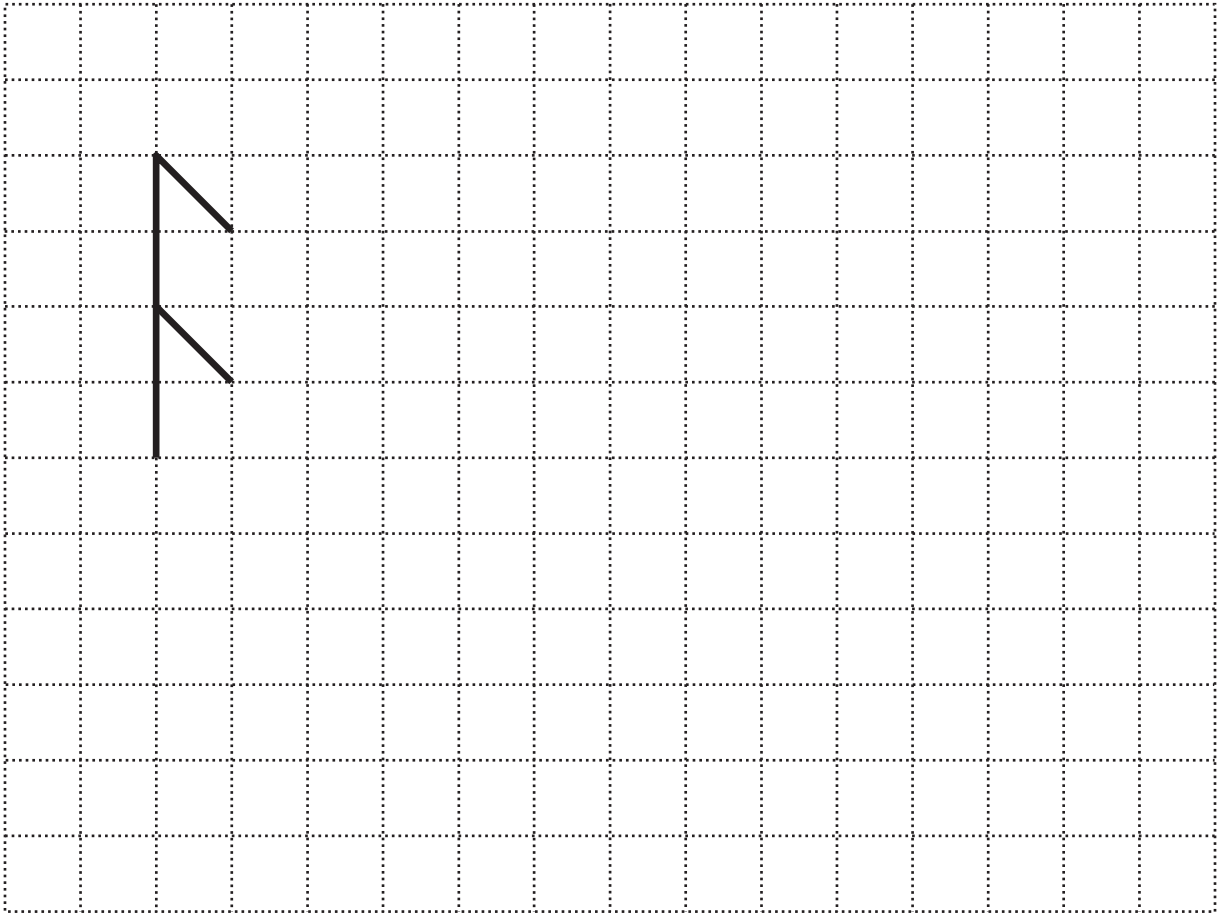
- (b) Anglo-Saxon pennies weigh 1.5 g each.**

**What do 4 Anglo-Saxon pennies weigh altogether?
[2 marks]**

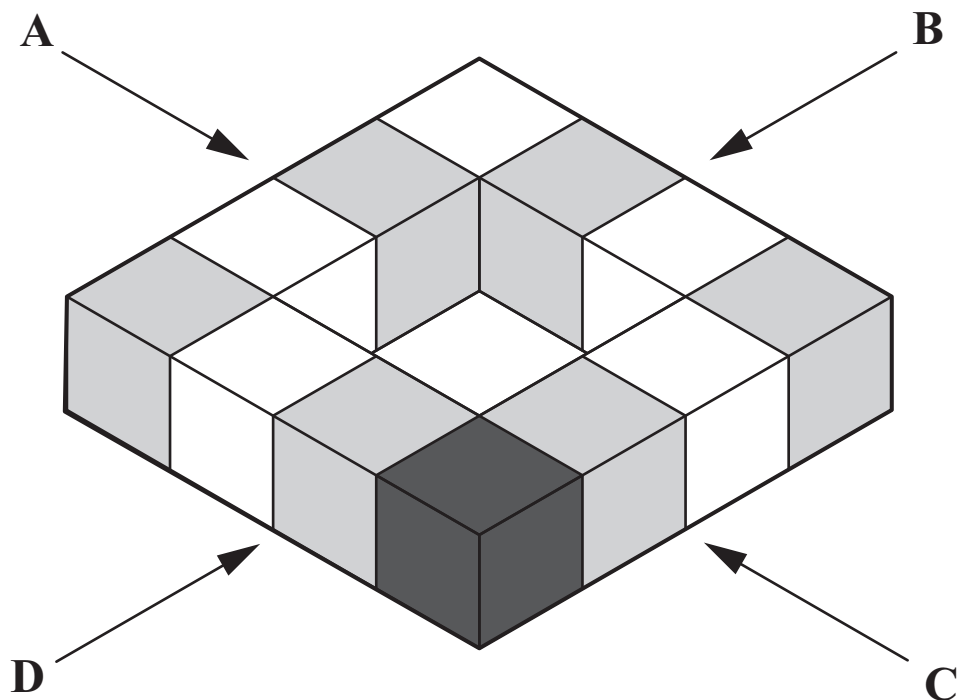
(b) _____ g

(c) On this grid is the Viking symbol for an ash tree.

**Draw an enlargement of the symbol, scale factor 2.
[3 marks]**



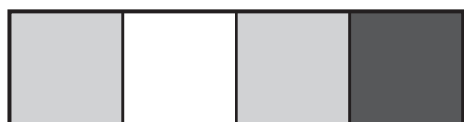
3 Here is a view of a model made from 12 cubes.



**Complete these statements with the correct letters.
[3 marks]**



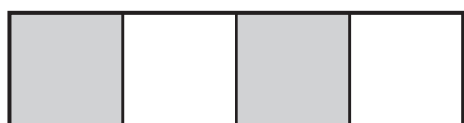
This is the view looking from _____



This is the view looking from _____



This is the view looking from _____



This is the view looking from _____

4 There are two ways of buying tickets for a theme park:

- on the day at the theme park
- on the internet

There are tickets for a whole family or separate tickets for adults and children.

Adult on the day	Adult on the internet	Child on the day	Child on the internet	Family* on the day	Family* on the internet
£29	£22	£19	£15	£74	£59

***Two adults and two children**

- (a) Work out the **MOST** that 2 adults and 2 children could pay to visit the theme park.
[3 marks]

(a) £ _____

(b) A family of 2 adults and 2 children want to visit the theme park.

It says on the internet ...

**Families can save over £35!!
BUY ONLINE**

**Is this true?
Explain your answer.
[2 marks]**

*Write Yes
or No.*

_____ because _____



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