

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

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General Certificate of Secondary Education  
June 2006



**MATHEMATICS (MODULAR) (SPECIFICATION B)**  
**Module 3 Foundation Tier Section A**

**33003/FA**  
**F**

Wednesday 28 June 2006 9.00 am to 9.40 am

<p><b>For this paper you must have:</b></p> <ul style="list-style-type: none"> <li>• a calculator</li> <li>• mathematical instruments</li> <li>• a treasury tag</li> </ul>	
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For Examiner's Use			
Section A		Section B	
Pages	Mark	Pages	Mark
3		2–3	
4–5		4–5	
6–7		6	
8			
Total Section A			
Total Section B			
TOTAL			
Examiner's Initials			

Time allowed for Section A: 40 minutes

**Instructions**

- Use blue or black ink or ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Answer the questions in the spaces provided.
- Use a calculator where appropriate.
- Do all rough work in this book.
- This paper is divided into two sections: Section A and Section B.
- After the 40 minutes allowed for Section A, you must put your calculator on the floor under your seat. You will then be given Section B.
- When you have answered Section B you may work again on Section A but you may **not** use your calculator. It must remain on the floor under your seat.
- At the end of the examination tag Section A and Section B together with Section A on top.

**Information**

- The maximum mark for Section A is 32.
- The marks for questions are shown in brackets.
- You may ask for more answer paper. This must be tagged securely to this answer book.

**Advice**

- In all calculations, show clearly how you work out your answer.

**There are no questions printed on this page**

Answer **all** questions in the spaces provided.

1 Complete the table below.

Fraction	Decimal	Percentage
$\frac{1}{10}$	0.1	10%
$\frac{1}{2}$		
		75%

(4 marks)

2 (a) Write the number 8364 to the nearest ten.

Answer ..... (1 mark)

(b) Write the number 8364 to the nearest 100.

Answer ..... (1 mark)

**Turn over for the next question**

3 This table shows the cost of sending parcels by post.

Maximum weight of parcel in grams	Cost
60 g	30p
100 g	46p
150 g	64p
200 g	79p
250 g	94p
300 g	£1.07
350 g	£1.21
400 g	£1.40
450 g	£1.59
500 g	£1.78

(a) A parcel weighs 100 g.

How much does it cost to post?

Answer ..... pence (1 mark)

(b) Another parcel weighs 240 g.

How much does this parcel cost to post?

Answer ..... pence (1 mark)

- (c) Both parcels are going to the same address.  
The two parcels are put together to make one parcel weighing 340 g.

Show that this will save 19 pence.

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.....  
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(2 marks)

- (d) What is the difference in the costs of posting a parcel weighing 250 g and a parcel weighing 300 g?

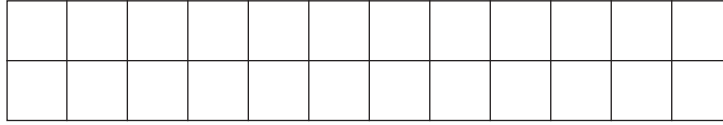
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Answer ..... pence (2 marks)

**Turn over for the next question**

4 Jodie buys 24 square tiles.

She puts them together to make a 12 by 2 rectangle.



(a) Write down the size of another rectangle she could make using all 24 tiles.

Answer ..... by ..... (1 mark)

(b) Can all 24 tiles be put together to make a square?

Explain your answer.

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(2 marks)

(c) One quarter of the tiles are blue, the rest are white.

Blue tiles cost £3 each.

White tiles cost £2 each.

Find the total cost of all 24 tiles.

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Answer £ ..... (4 marks)

5 Calculate  $0.8^2 + 1.72^3$

(a) Write down your full calculator display.

Answer ..... (1 mark)

(b) Round your answer to one significant figure.

.....  
Answer ..... (1 mark)

6 Cartons of orange juice cost 34 pence each.

(a) Work out the cost of three cartons of orange juice.

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.....  
Answer £ ..... (2 marks)

(b) Jeff has a £5 note to buy some cartons of orange juice.

What is the greatest number of cartons he can buy for £5?

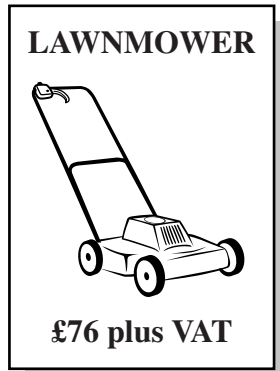
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Answer ..... (2 marks)

(c) Show that he can buy more than twice as many cartons of orange juice with £10 as he can with £5.

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(2 marks)

Turn over for the next question

7 (a) A lawnmower is advertised as shown.



VAT is added at 17.5%.

Work out the cost of the lawnmower including VAT.

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Answer £ ..... (3 marks)

(b) A shop has 40 lawnmowers for sale.  
They sell 15 in one day.

What percentage is 15 out of 40?

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Answer ..... % (2 marks)

**END OF SECTION A**