Surname		Other Names	
Centre Number			Candidate Number									
Candidate Signature												

For Examiner's Use

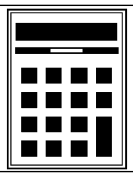
General Certificate of Secondary Education
June 2008

MATHEMATICS (MODULAR) (SPECIFICATION B) 43003/FA
Module 3 Foundation Tier Section A

F

Tuesday 24 June 2008 9.00 am to 9.40 am

For this paper you must have:
- a calculator
- mathematical instruments
- a treasury tag.



Time allowed for Section A: 40 minutes

Instructions
- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- 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.

For Examiner's Use			
Section A		**Section B**	
Pages	Mark	Pages	Mark
2–3		2–3	
4–5		4–5	
6		6	
Total Section A			
Total Section B			
TOTAL			
Examiner's Initials			

Areas outside the box will not be scanned for marking

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

1 The diagram shows three equal rectangles.

1 (a) (i) What fraction of the diagram is shaded?

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

1 (a) (ii) Sam says that more than half of the shape is **not** shaded.

Is he correct?
Circle the answer.

Yes No *(1 mark)*

1 (b) Which fraction is larger, $\frac{1}{2}$ or $\frac{1}{3}$?

Circle the answer.

$\frac{1}{2}$ $\frac{1}{3}$

(1 mark)

Areas outside the box will not be scanned for marking

2 Look at this list of numbers.

3085 20 176 5476 909 13 860

2 (a) Which is the largest number in the list?

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

2 (b) Write your answer to part (a) in words.

.....

.....

(1 mark)

2 (c) Multiply together the two odd numbers from the list.

.....

Answer ..... *(2 marks)*

2 (d) Which **two** of the numbers in the list are multiples of 5?

Answer ..... and ..... *(2 marks)*

2 (e) Which of the numbers in the list is equal to 74 squared?

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

3 Complete the table.

Fraction	Decimal	Percentage
$\frac{9}{100}$	0.09	
	0.15	15%
$\frac{4}{5}$		80%

(3 marks)

13

Areas outside the box will not be scanned for marking

4 Linda had £100 with her when she went shopping.
She bought

5 DVDs	at	£8.99 each
2 dresses	at	£21.45 each
1 bag	at	£9.99

How much money did she have left after she bought these goods?

.....

.....

.....

Answer £ ..... *(4 marks)*

5 Calculate 47% of 58.

.....

.....

.....

Answer ..... *(2 marks)*

Areas outside the box will not be scanned for marking

6 Matt is going on holiday to Jordan.
The currency of Jordan is the dinar.
£1 = 1.25 dinar

6 (a) Matt changes £500 into dinar.

How many dinar does Matt receive?

.....

.....

Answer ..... dinar *(2 marks)*

6 (b) After the holiday Matt has 47.50 dinar left.

Convert 47.50 dinar into pounds.

.....

.....

Answer £ ..... *(2 marks)*

7 Calculate $\dfrac{5.6 \times 7.8}{4.3 - 2.1}$

.....

.....

7 (a) Write down your full calculator display.

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

7 (b) Write your answer to part (a) to one decimal place.

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

7 (c) Insert brackets in

$$5.6 \times 7.8 \div 4.3 - 2.1$$

so that it is equal to $\dfrac{5.6 \times 7.8}{4.3 - 2.1}$

(1 mark)

13

Areas outside the box will not be scanned for marking

8 There are 126 people at a party.
The ratio of adults to children at the party is 1 : 6

8 (a) How many adults and children are there?

.....

.....

.....

Answer Adults .....

Children ..... *(3 marks)*

8 (b) Nine more adults arrive.

Including these adults, what is the new ratio of adults to children?
Give your answer in the form 1 : *k*, where *k* is to be found.

.....

.....

.....

Answer ..... *(3 marks)*

END OF SECTION A

6

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General Certificate of Secondary Education
June 2008

ASSESSMENT and QUALIFICATIONS ALLIANCE

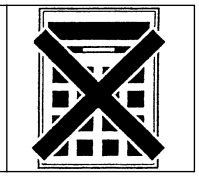
MATHEMATICS (MODULAR) (SPECIFICATION B) 43003/FB
Module 3 Foundation Tier Section B

F

Tuesday 24 June 2008 9.45 am to 10.25 am

For this paper you must have:
- mathematical instruments.

You must **not** use a calculator.



Time allowed for Section B: 40 minutes

Instructions
- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- Do all rough work in this book.
- You may **not** use your calculator in Section B. Your calculator must remain on the floor under your seat.
- 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 B 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.

Areas outside the box will not be scanned for marking

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

9 Work out

9 (a) 639 + 874

.....

.....

.....

Answer ..... *(2 marks)*

9 (b) 1100 – 582

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Answer ..... *(2 marks)*

9 (c) 108 ÷ 4

.....

.....

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

9 (d) $\frac{3}{8}$ of 48

.....

.....

.....

Answer ..... *(2 marks)*

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10 Insert operations to make the calculations correct.
Choose from +, – and ×.

Example 3 4 5 = 7

Answer 3 × 4 – 5 = 7

10 (a) 3 4 5 = 2 *(1 mark)*

10 (b) 3 4 5 = 17 *(1 mark)*

11 Estimate the value of 198×3.1

.....

.....

Answer ..... *(2 marks)*

12 In each list, put the numbers in order starting with the smallest.

12 (a) 0.65 0.8 0.334

.....

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

12 (b) –8 6 –5 2.5

.....

Answer ..... *(2 marks)*

14

Turn over ▶

Areas outside the box will not be scanned for marking

13 1475 people queue for a fairground ride.
The ride takes 35 people each time.

How many times does the ride go so that everyone gets a ride?

.....

.....

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.....

Answer ..... *(4 marks)*

14 You are given that 1 billion = 1000 million.
In the 2005 / 2006 football season the total income from broadcasting for the Premier League clubs was £501 837 248.

Is the total income more than half a billion pounds?
You **must** explain your answer.

.....

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.....

(2 marks)

15 Work out

15 (a) the cube of 3

.....

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

15 (b) 0.1×0.2

.....

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

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16 You are given that $\frac{34\,888}{98} = 356$

Write down the value of

16 (a) 356×980

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

16 (b) $\frac{34\,888}{9.8}$

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

17 Work out $\frac{3}{5} - \frac{2}{7}$

.....

.....

.....

Answer ..... *(2 marks)*

18 Tom says that there are no numbers less than 100 which are both a square number and a cube number.

Find **two** examples to show that Tom is wrong.

.....

.....

.....

Answer ..... and ..... *(2 marks)*

14

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19 (a) Write 36 as the product of prime factors.
Give your answer in index form.

.....

.....

.....

Answer ..... *(3 marks)*

19 (b) What is the Least Common Multiple (LCM) of 12 and 36?

.....

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

END OF QUESTIONS

4

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