Surname		Other Names	
Centre Number			Candidate Number									
Candidate Signature												

For Examiner's Use

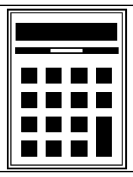
General Certificate of Secondary Education
March 2007

MATHEMATICS (MODULAR) (SPECIFICATION B) 33001/FA
Module 1 Foundation Tier Section A

F

Monday 5 March 2007 1.30 pm to 1.55 pm

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



Time allowed for Section A: 25 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 25 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 20.
- The marks for questions are shown in brackets.
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer book.

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

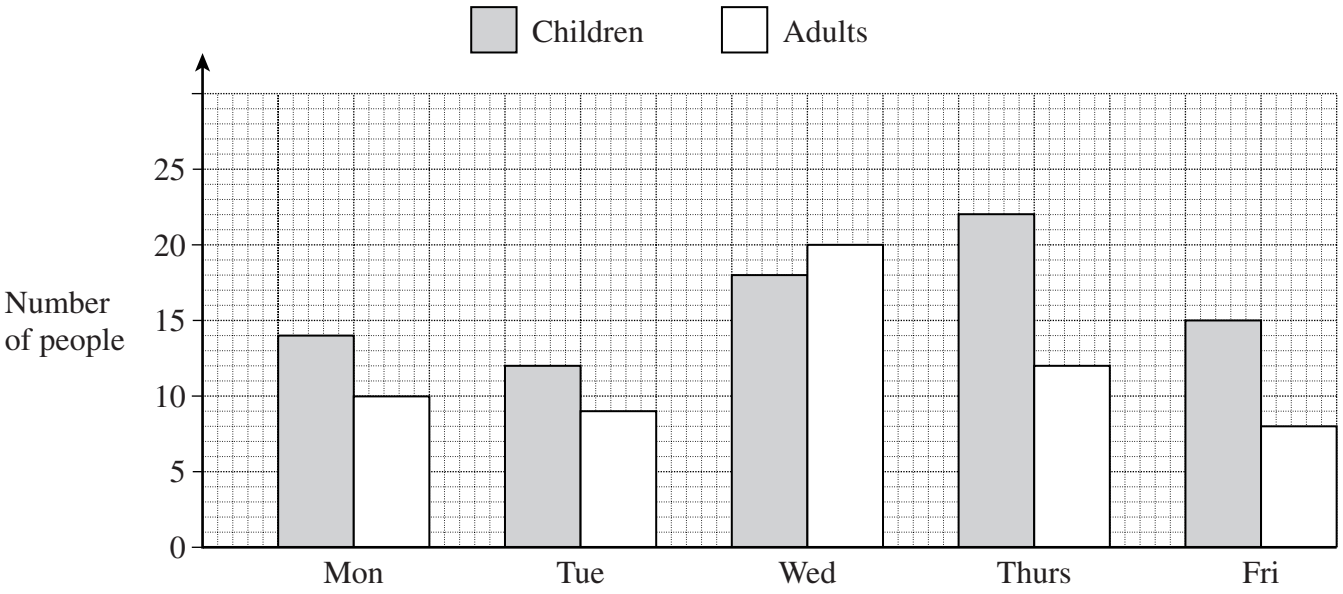
For Examiner's Use			
Section A		**Section B**	
Question	Mark	Question	Mark
1		4	
2		5	
3		6	
		7	
		8	
Total Section A			
Total Section B			
TOTAL			
Examiner's Initials			

There are no questions printed on this page

LEAVE MARGIN BLANK

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

1 John recorded the number of people who attended a swimming session each day.
The dual bar chart shows his results.



(a) How many children attended on Monday?

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

(b) On which day did most children attend?

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

(c) How many people attended the session on Friday?

.....

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

(d) Calculate the total number of adults who attended these five sessions.

.....

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

(e) John says that each session was attended by more children than adults.

Is he correct?
Give a reason for your answer.

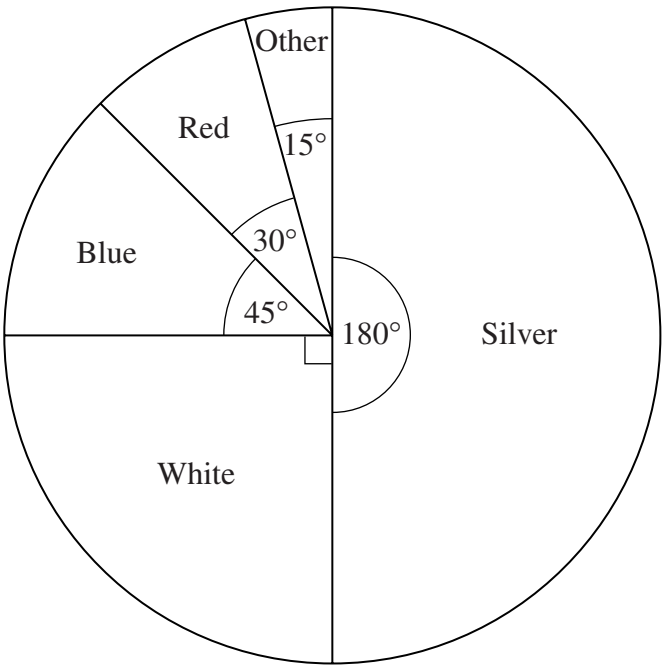
.....

.....

(1 mark)

7

2 (a) 120 men were asked what colour car they own.
The pie chart shows the results.



(i) What fraction of the men own a white car?

.....

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

(ii) Work out the number of men who own a blue car.

.....

.....

.....

.....

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

(b) 120 women were also asked what colour car they own.
The results are shown in the table.

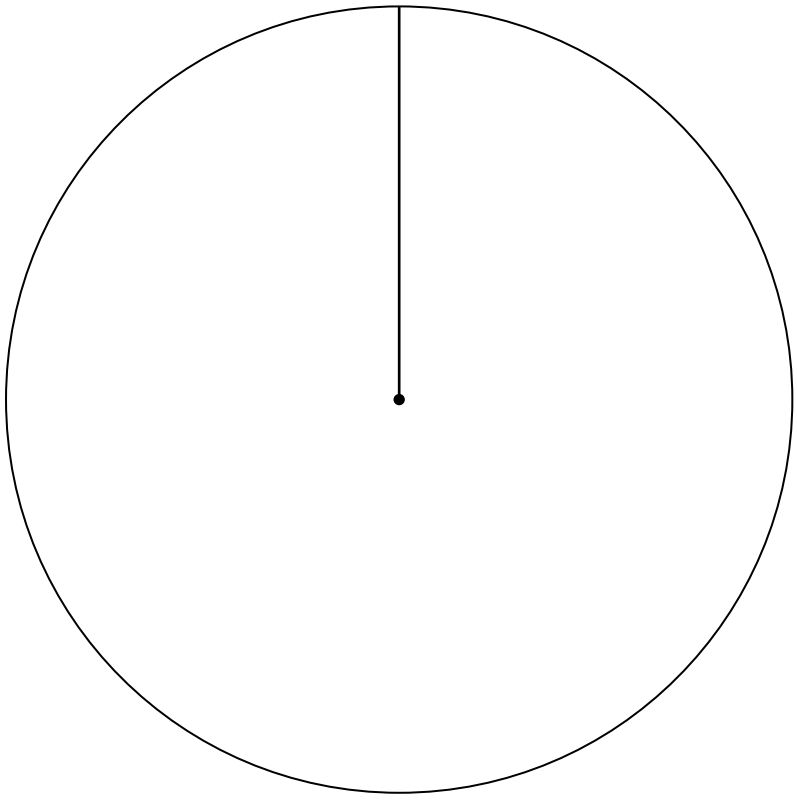
Colour	Number of women
White	42
Blue	35
Silver	25
Red	10
Other	8

Draw and label a pie chart to show this information.

.....

.....

.....



(4 marks)

(c) Which colour car is owned by the same number of men and women?

.....

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

3 A bag contains red, green, yellow and blue marbles.
A marble is taken from the bag at random.
The table shows some of the probabilities of choosing each colour.

Colour	**Probability**
Red	0.41
Green	0.15
Yellow	
Blue	0.32

Calculate the probability that the marble is

(a) yellow

.....

.....

.....

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

(b) not blue.

.....

.....

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

4

END OF SECTION A

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Surname		Other Names	
Centre Number			Candidate Number									
Candidate Signature												

General Certificate of Secondary Education
March 2007

ASSESSMENT and QUALIFICATIONS ALLIANCE

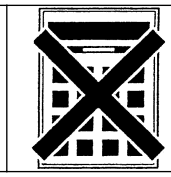
MATHEMATICS (MODULAR) (SPECIFICATION B) 33001/FB
Module 1 Foundation Tier Section B

F

Monday 5 March 2007 2.00 pm to 2.25 pm

For this paper you must have:
- mathematical instruments.

You must **not** use a calculator.



Time allowed for Section B: 25 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.
- 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 20.
- The marks for questions are shown in brackets.
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer book.

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

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

4 The number of visitors to a bottle bank was recorded each weekday for one week.

Day	Tally	Frequency
Monday	𝍸 𝍸	10
Tuesday	𝍸 |||	8
Wednesday	||||	
Thursday	|||	
Friday	𝍸 |	

(a) Complete the frequency column. *(1 mark)*

(b) On which day were there most visitors?

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

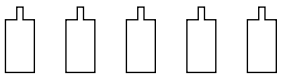
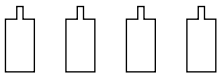
(c) How many visitors were there altogether?

.....

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

(d) Complete the pictogram to represent this information.

 = 2 visitors

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

(2 marks)

5

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5 The sizes of shoes sold in a shoe shop one lunchtime are shown below.

6 5 7 9 7 6 11 7 9 9 9 8 10

(a) What was the median shoe size sold?

.....

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

(b) Write down the mode.

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

(c) Which average would be more useful to the shopkeeper when buying more stock?
Tick a box.

☐ Median ☐ Mode

Give a reason for your answer.

.....

.....

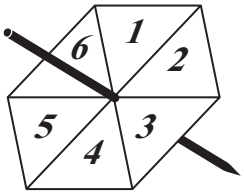
.....

(1 mark)

4

Turn over for the next question

6 A fair six-sided spinner is numbered from 1 to 6.



The spinner is spun once.
Mark on the probability scale the probabilities of each of the following events.

A The spinner lands on an even number.

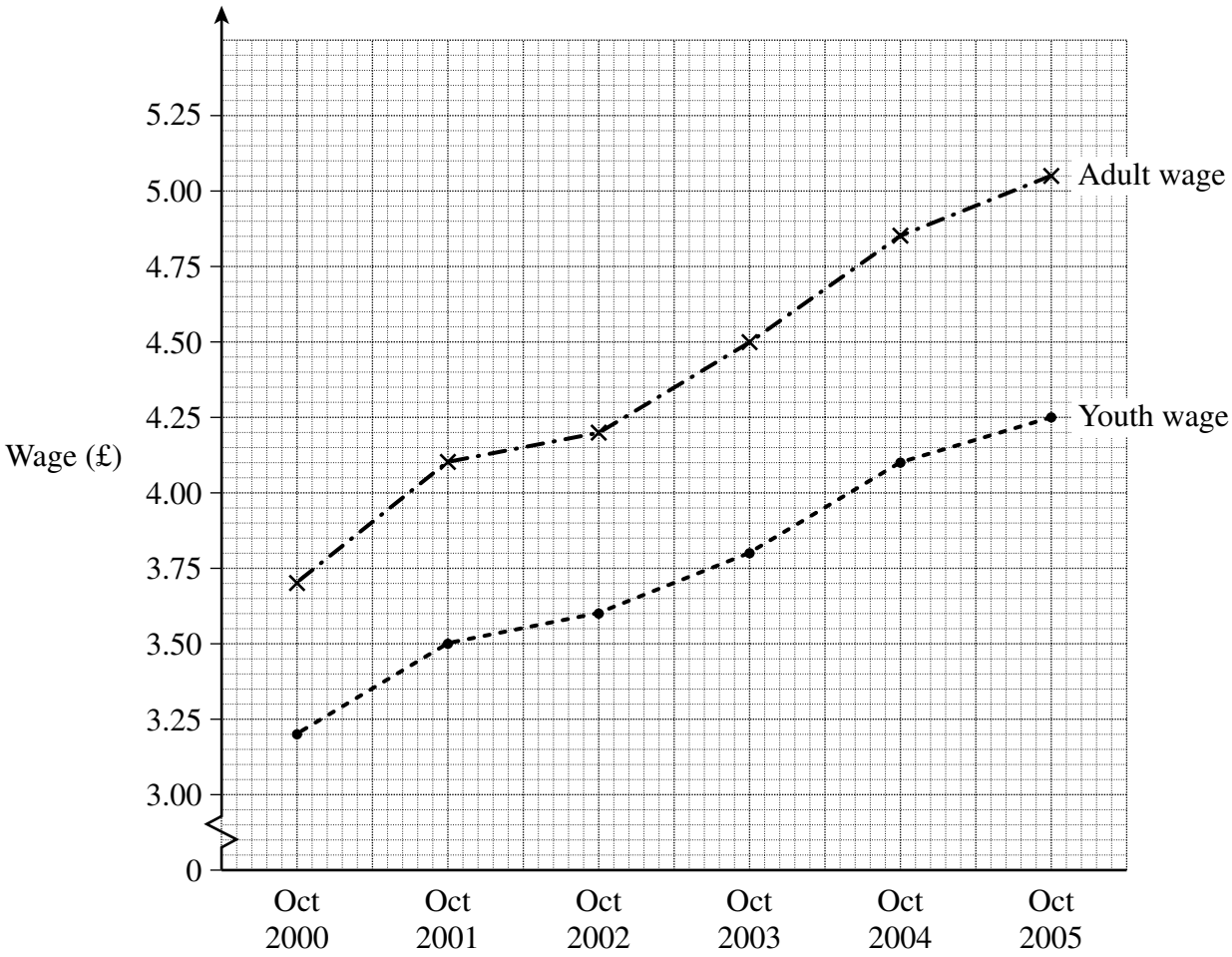
B The spinner lands on a 4 or a 5.

C The spinner lands on a number less than 7.

(3 marks)

3

7 The graph shows the National Minimum Wage for adults and youths from October 2000 to October 2005.



(a) Work out the increase in the Youth wage from October 2001 to October 2002.
Give your answer in pence.

.....

.....

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

(b) Over the period shown by the graph, has the Adult wage or the Youth wage increased the most?
Explain your answer.

.....

.....

.....

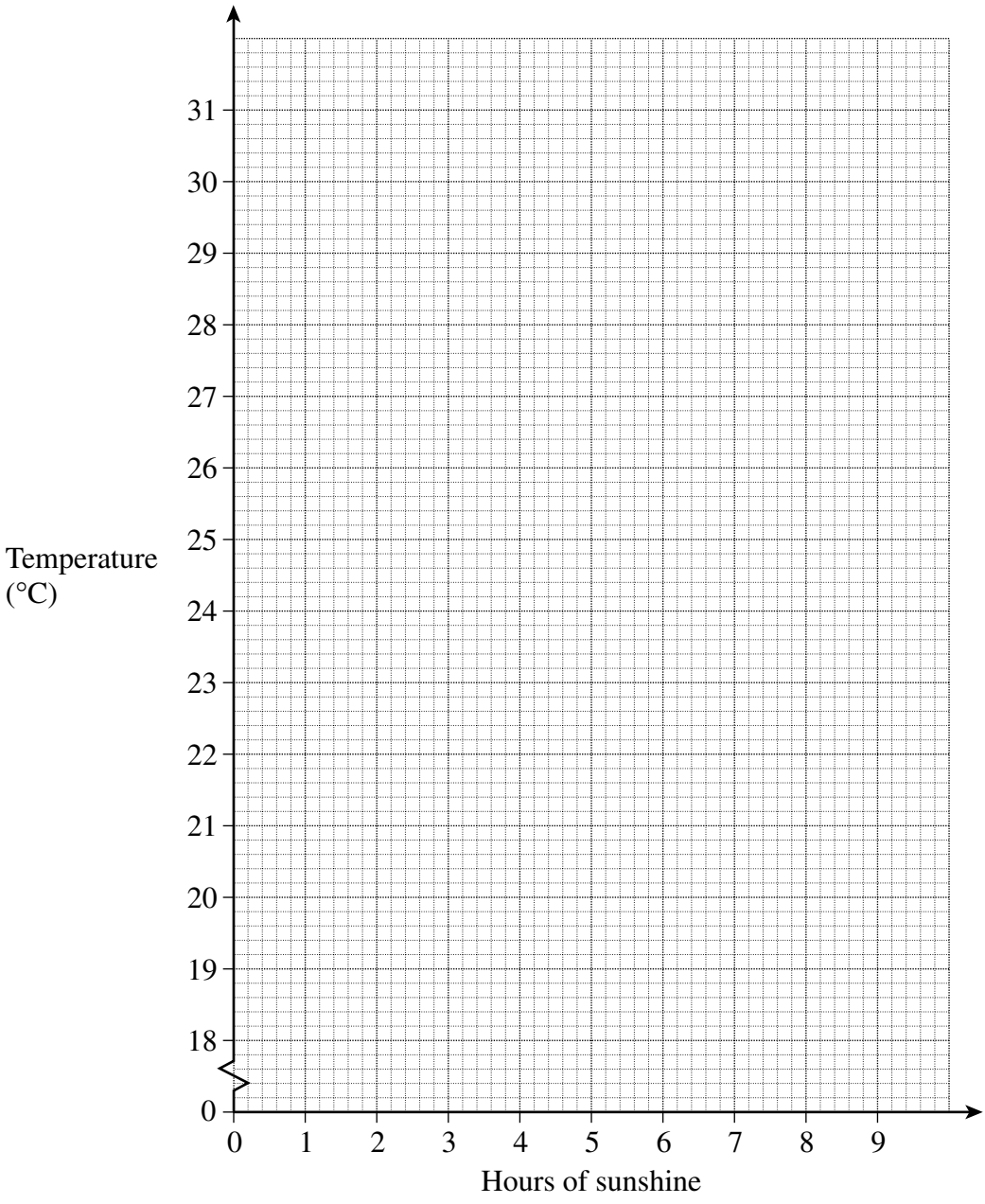
(2 marks)

4

8 The number of hours of sunshine and the maximum temperature at a seaside resort were measured on seven days in June.

Hours of sunshine	5	9	8	6	5	2	4
Temperature (°C)	26	30	29	26	24	19	23

(a) Plot this data as a scatter graph.



(2 marks)

(b) Draw a line of best fit on your scatter graph. *(1 mark)*

(c) Use your line of best fit to estimate the maximum temperature on a day in June when there are 7 hours of sunshine.

Answer ..... °C *(1 mark)*

END OF QUESTIONS

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