General Certificate of Secondary Education

MATHEMATICS C
(Graduated Assessment)

1966/2341B

FOUNDATION TERMINAL PAPER – SECTION B

Tuesday **8 JUNE 2004** Afternoon 1 hour

Candidates answer on the question paper.
Additional materials:
Geometrical instruments
Tracing paper (optional)
Pie chart scale (optional)
Electronic calculator

Candidate Name	Centre Number	Can Nu

TIME 1 hour

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the boxes above.
- Answer **all** the questions.
- Write your answers, in blue or black ink, on the dotted lines unless the question says othe
- Read each question carefully and make sure you know what you have to do before star answer.
- There is a space after most questions. Use it to do your working. In many questions mar given for a correct method even if the answer is incorrect.

INFORMATION FOR CANDIDATES

- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [ ] at the end of each question or part questio
- The total number of marks for this Section is 50.
- Section B starts with question 13.
- Use the π button on your calculator or take π to be 3·142 unless the question says other

FOR EXAMINE	
Section B	

an event happens **less than** half the time

an event happens **exactly** half the time

an event happens **every** time

(b) Mary, Jill and Roger are playing a game.
They have a spinner labelled with these numbers.

4 5 6 7 8 9

They spin the spinner to decide who goes first.

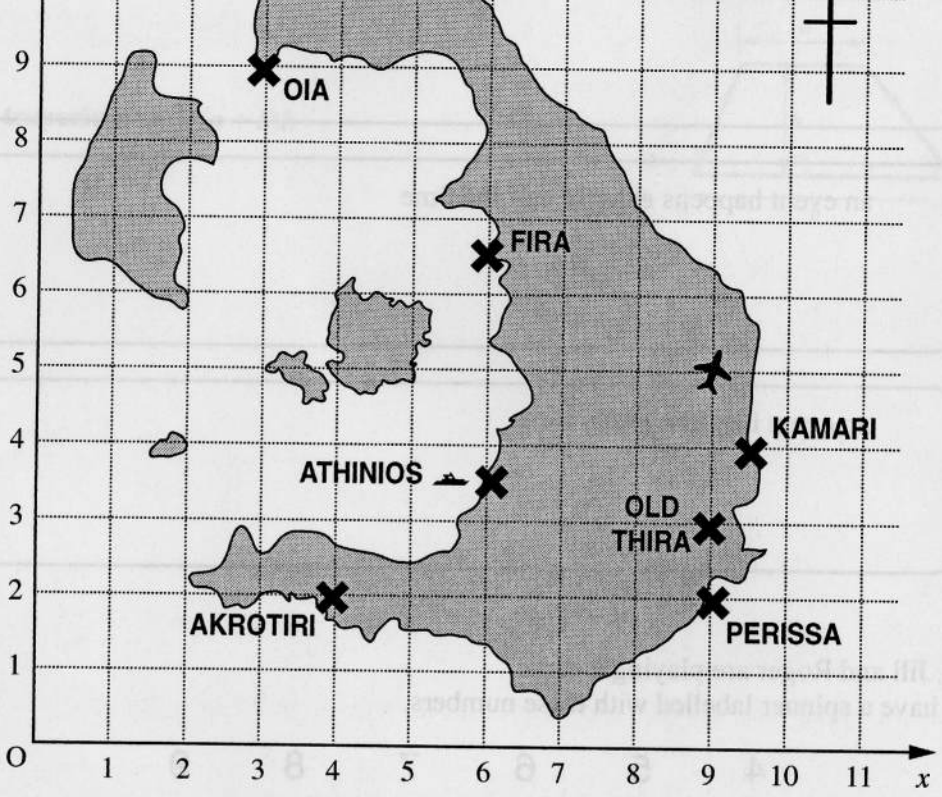
Mary says "If it is an odd number, I go first.
If it is a multiple of 4, Jill goes first.
If it is a factor of 6, Roger goes first."

Is this fair?

Explain your answer.

..... because .....

.....



(a) Which town is at (9, 3)?

(a) .....

(b) What are the coordinates of the airport ✈ ?

(b)(....., ...

(c) The volcano is at $(4\frac{1}{2}, 5\frac{1}{2})$.

Mark the volcano on the map with an × .
Label it V.

(d) Complete.

(i) Perissa is south of ..... and it is ..... of Akrotiri.

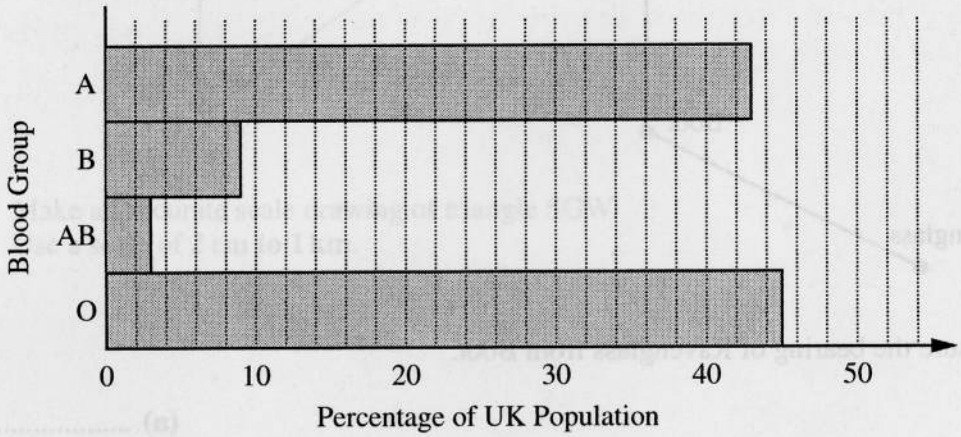
(ii) Kamari is ..... of Oia.

(f) Nine thousand eight hundred people live on Santorini.

Write this number in digits.

(f) .....

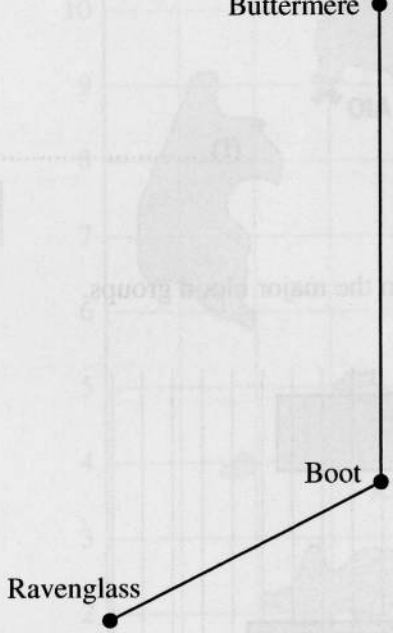
15 The chart shows the percentage of people in the UK that are in the major blood groups.



In each blood group, some people are Rhesus Positive and the rest are Rhesus Negative.

Use the chart to help you complete this table.

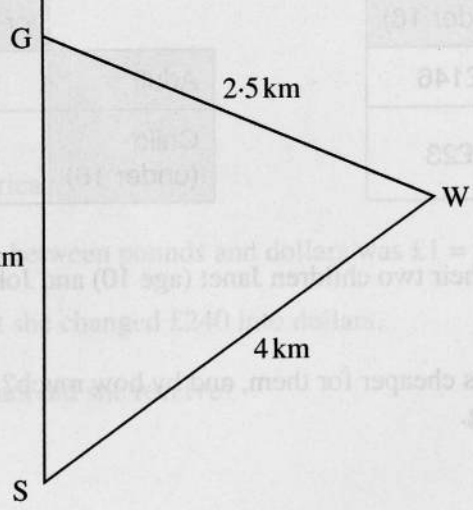
Blood group	Rhesus Positive	Rhesus Negative	Total
A	36%		43%
B		1%	
AB	2%	1%	3%
O	38%		
Total Population			100%



Scale:
1 cm to 2·5 km

Measure the bearing of Ravenglass from Boot.

(a) .....



Not to scale

(i) Make an accurate scale drawing of triangle SGW.
Use a scale of **2 cm to 1 km**.

(ii) Use your drawing to find the bearing of W from G.

(b)(ii) .....

Flight	£151	£146
Hotel **per night**	£26	£23

Adult	£299
Child (under 16)	£259

Mr and Mrs Barnett are taking their two children Janet (age 10) and John (age 7) on holiday for 7 nights.

Which of these two companies is cheaper for them, and by how much?
You must show all your working.

(a) ..... is cheaper by £ .....

(b) Mrs Barnett changes £720 into euros.

(i) Use this formula to change £720 into euros.

$$E = P \times 5 \div 3$$

where P is the amount in pounds (£)
and E is the amount in euros (€).

(b)(i) €.....

(ii) £ .....

18 Pat travelled to America.

The rate of exchange between pounds and dollars was £1 = $1·565.

(a) Before she went she changed £240 into dollars.

How many dollars did she receive?

(a) $ .....

(b) While in New York she bought some perfume.

The perfume cost $28·17.
The same perfume cost £22·50 in England.

How much less did the perfume cost in New York?
Give your answer in pounds.

(b) £ .....

(b) $8x = 80$

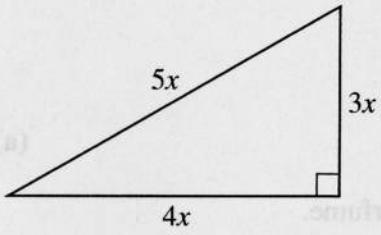
(b) .....

(c) $4x - 5 = 17$

(c) .....

4

20 The diagram shows a right-angled triangle.



Not to scale

Write, as simply as possible, expressions for

(a) the perimeter of this triangle,

(a) .....

(b) the area of this triangle.

(b) .....

4

16 g	fresh yeast
250 ml	warm water
2 tablespoons	olive oil
1 teaspoon	salt
420 g	plain flour

Bake at 425 °F for 10 minutes

(a) He wants to make 6 pizzas.

Complete the list to show how much of each ingredient he should use.

.....	g	fresh yeast
.....	ml	warm water
.....	tablespoons	olive oil
.....	teaspoon	salt
.....	g	plain flour

(b) The pizzas are baked at 425 °F.
Marco's oven shows the temperature in °C.

Use this formula to convert 425 °F to °C.

$$C = (F - 32) \times \frac{5}{9}$$

where C is the temperature in °C,
F is the temperature in °F.

(b) .....