



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**GEOGRAPHY**

**0460/23**

Paper 2

**October/November 2010**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials:      Ruler  
   Protractor  
   Plain paper

1:25 000 Survey Map Extract is enclosed with this Question Paper.

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name in the spaces provided.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

Do not use staples, paper clips, highlighters, glue or correction fluid.

**DO NOT WRITE IN ANY BARCODES.**

Answer **all** questions.

The Insert contains Photograph A for Question 3.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

The Survey Map Extract and the Insert are **not** required by the Examiner.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [ ] at the end of each question or part question.

**For Examiner's Use**

<b>Q1</b>	
<b>Q2</b>	
<b>Q3</b>	
<b>Q4</b>	
<b>Q5</b>	
<b>Q6</b>	
<b>Total</b>	

This document consists of **15** printed pages, **1** blank page and **1** Insert.



1 The map extract is for Quatre Soeurs, Mauritius. The scale is 1:25 000.

(a) Fig. 1 shows the position of some features in the north east of the map extract. Study the map extract and Fig. 1 and answer the questions below.

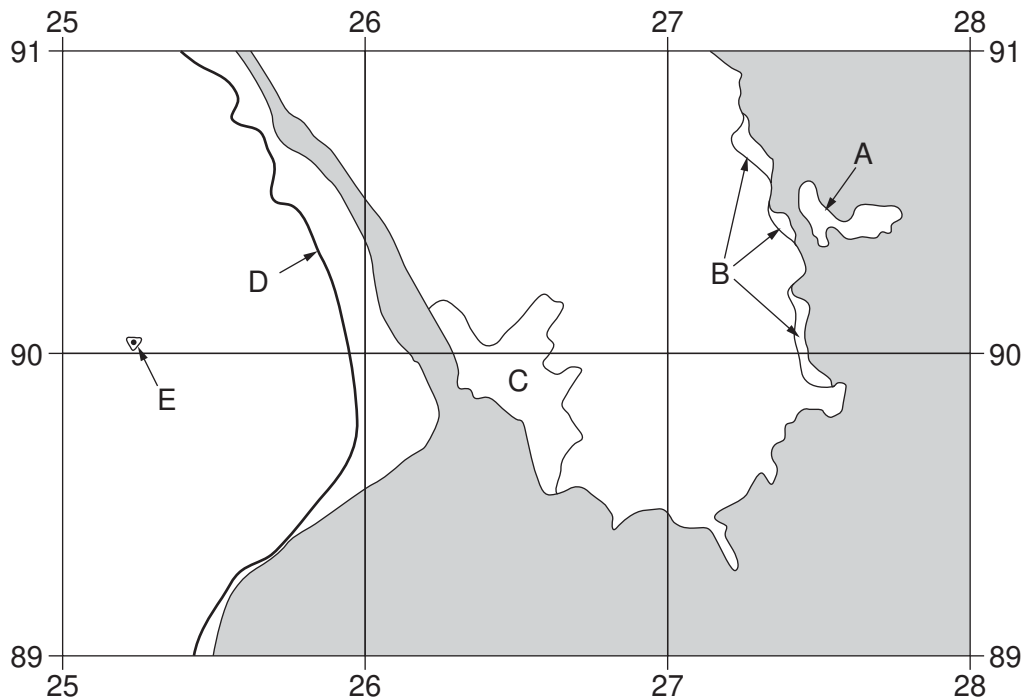


Fig. 1

Using the map extract, identify the following features shown on Fig. 1:

(i) the name of island A;

..... [1]

(ii) the type of vegetation in areas B;

..... [1]

(iii) **two** services at C, Grande Rivière Sud Est;

..... [1]

(iv) the type of road at D;

..... [1]

(v) the height above sea level of the minor trigonometrical station at E.

..... [1]

(b) Study the Deep River in the west of the map extract.

Which **three** of the following statements about the Deep River are correct? Tick only **three** statements.

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Statement	Tick
The course of the river is meandering	
The width of the river is generally less than 100 metres	
The river is flowing south	
The river has waterfalls	
The river has rapids	
There are no bridges over the river	

[3]

(c) Fig. 2 is a cross section drawn along northing 885 through Mt Chat.

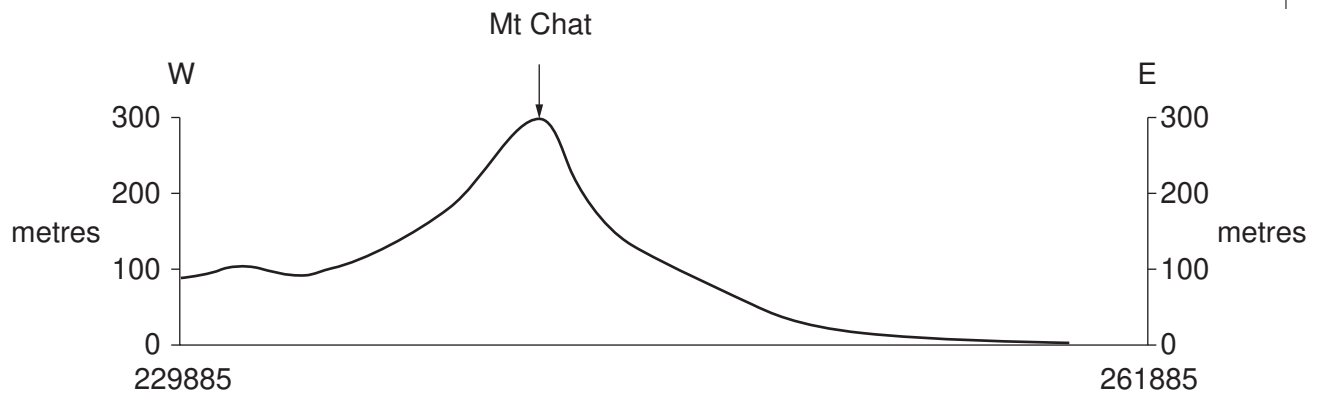


Fig. 2

Using labelled arrows, mark the following features on Fig. 2:

- (i) an area of forest; [1]
- (ii) the Grand River South East; [1]
- (iii) the Marie Jeanne Road. [1]

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[4]

(e) Find the settlement of La Nourrice in the northern part of the map extract.

- (i) What is the six figure grid reference for the cross roads in La Nourrice? Circle **one** correct answer below.

~~23~~897                      224897                      225897                      897225                      [1]

- (ii) A person walks from the cross roads to the bridge over the Grand River South East at 233887. In which compass direction does the person walk?

..... [1]

- (iii) Measure the distance that the person walks along the road. Give your answer in metres.

..... metres [1]

- (f) (i) Look at the settlements along the coast. Which **one** of the following terms best describes these settlements? Tick **one** box only.

Term	Tick
nucleated	
linear	
dispersed	

[1]

- (ii) Suggest **one** reason why there are few settlements inland, south of the main river.

.....  
 .....  
 ..... [1]

[Total: 20 marks]

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- 2 Study Fig. 4, which shows the islands of New Zealand, situated in the south Pacific Ocean in the southern hemisphere.

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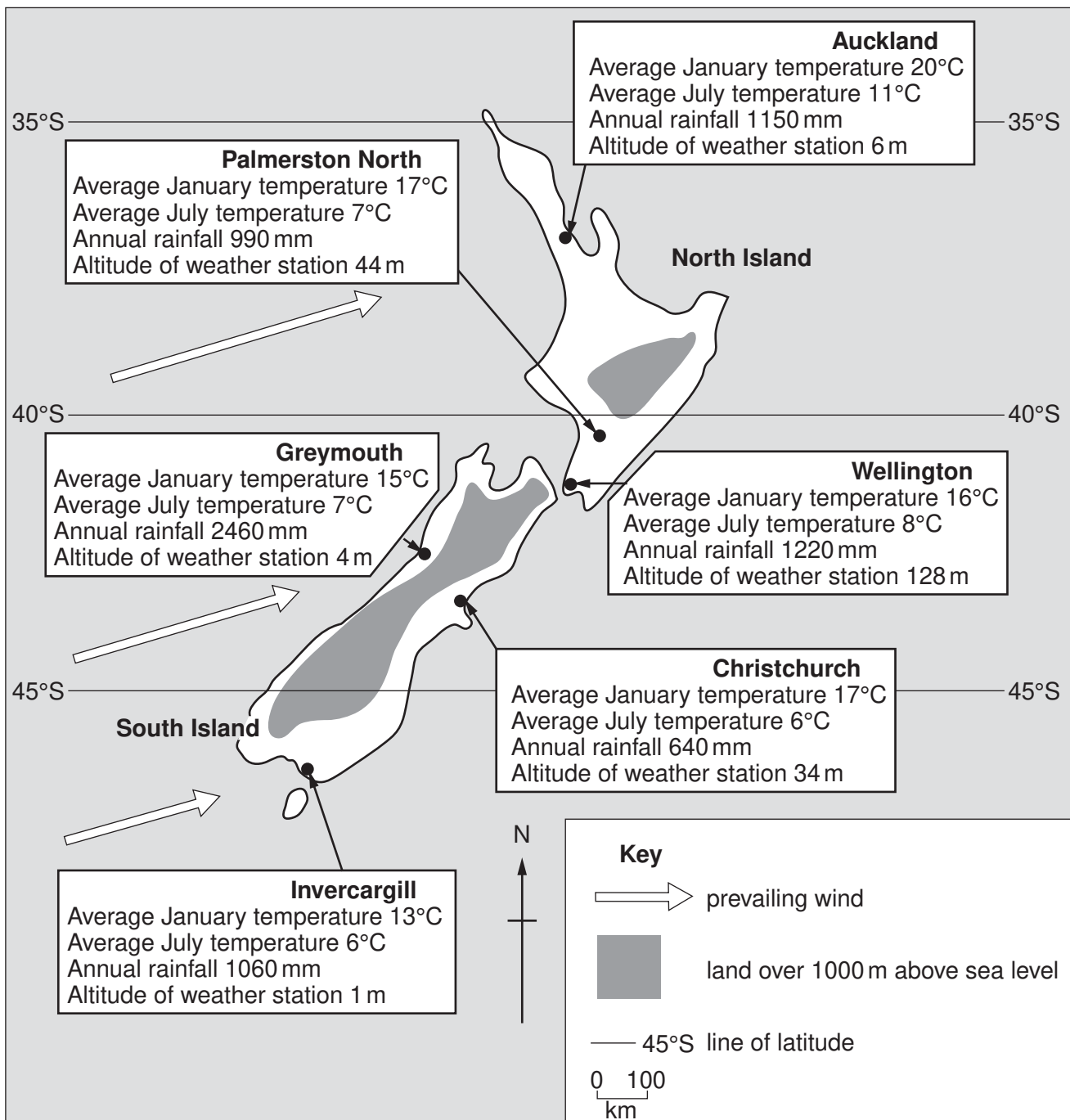


Fig. 4

(a) Fig. 4 gives information about six places in New Zealand. Which of these places has:

(i) its weather station highest above sea level;

..... [1]

(ii) the lowest annual rainfall on the North Island;

..... [1]

(iii) the greatest annual range of temperature?

..... [1]

(b) Study the temperatures for Auckland and Invercargill. With the help of Fig. 4, explain why the temperatures of the two places are different.

.....  
.....  
.....  
.....  
..... [2]

(c) Study the rainfall for Greymouth and Christchurch. With the help of Fig. 4, suggest why the rainfall of the two places is different.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

[Total: 8 marks]

- 3 Photograph A (Insert) shows a coastal area of Iceland. Fig. 5 is a student's field sketch of the same area.

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Fig. 5

[2]

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[6]

[6]

[Total: 8 marks]

- 4 (a) Figs 6A and 6B show two parts of a river and its valley.

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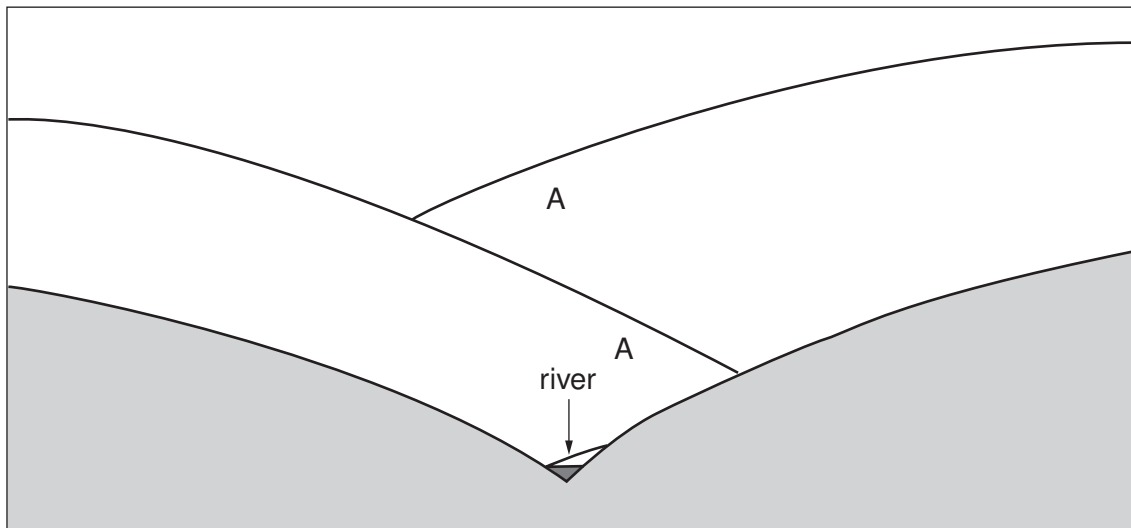


Fig. 6A

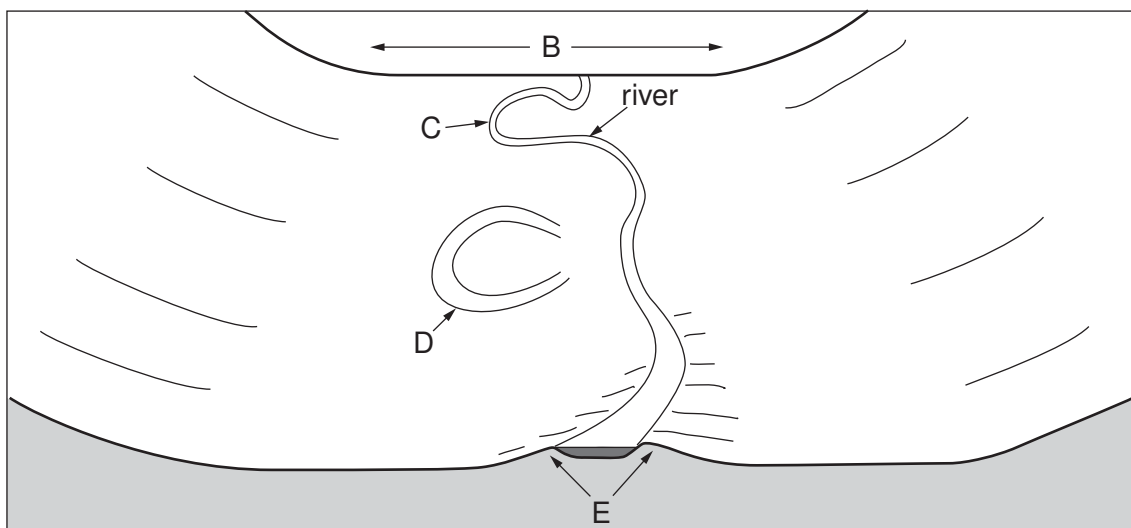


Fig. 6B

Study Figs 6A and 6B and name features A, B, C, D and E.

Feature ...A.....

Feature ...B.....

Feature ...C.....

Feature ...D.....

Feature ...E.....

[5]

- (b) The long profile of a river is the slope of the river bed from the source of the river to the mouth.

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Fig. 7 shows a map of a river and its valley.

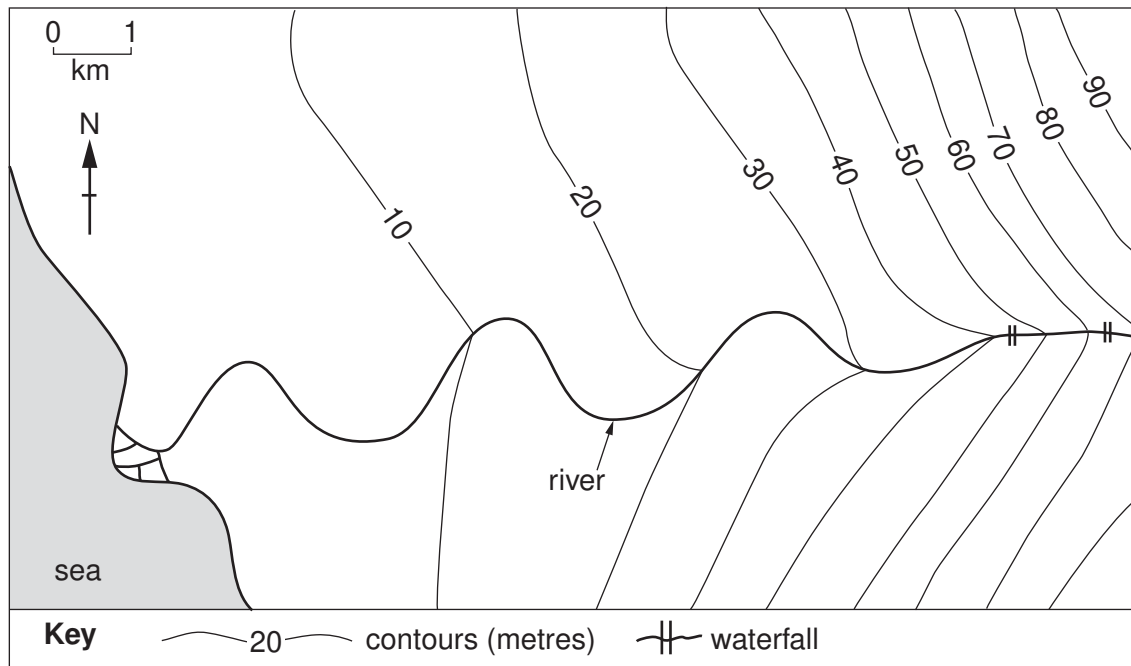


Fig. 7

Describe the long profile of this river.

.....

.....

.....

.....

.....

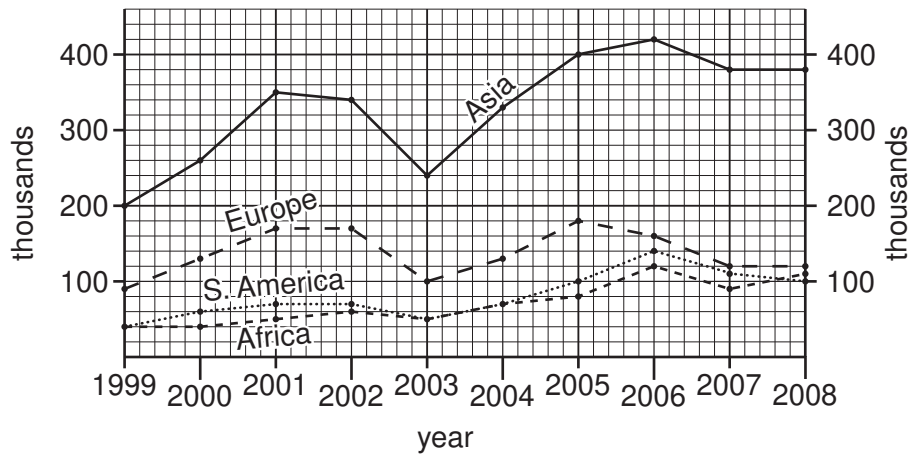
..... [3]

[Total: 8 marks]

- 5 Study Fig. 8 and Fig. 9 which show the number of migrants to the United States of America (USA) from four continents. Use the information on Fig. 8 and Fig. 9 to answer the questions on the opposite page.

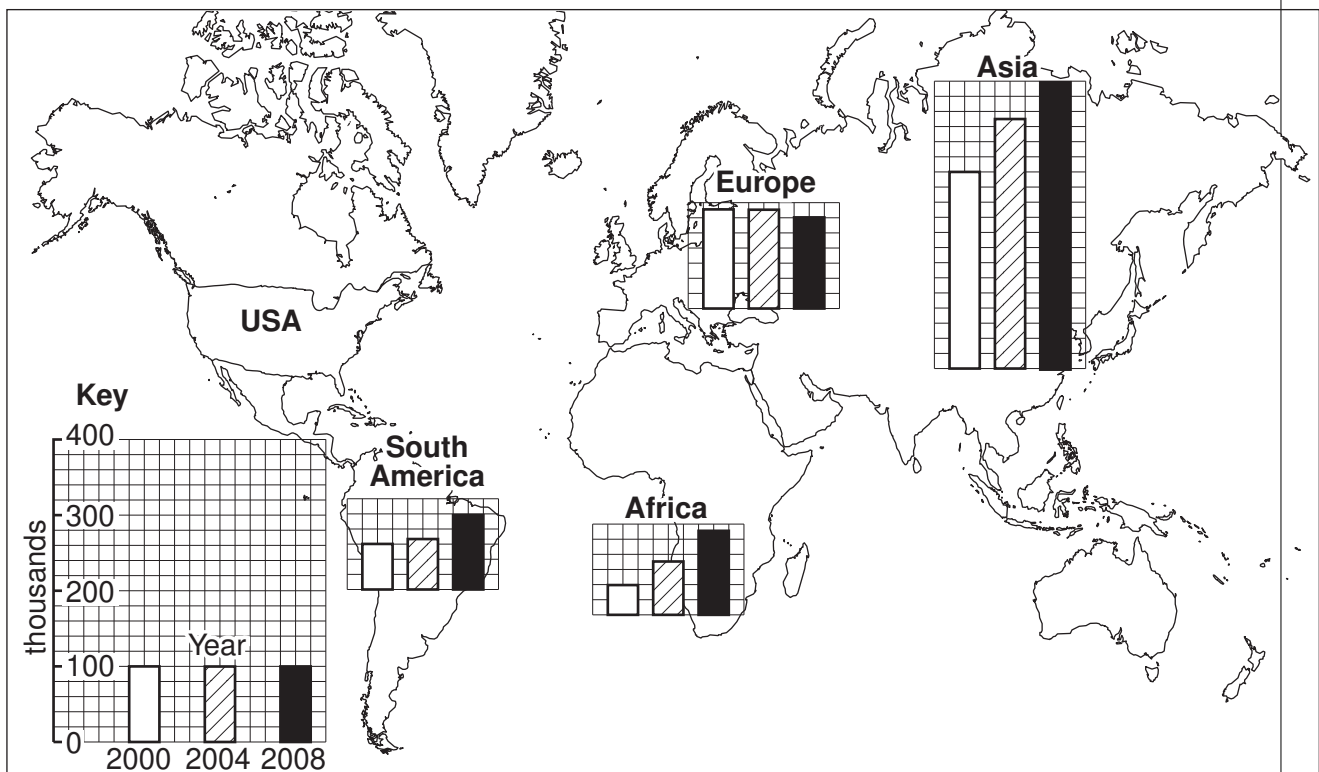
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**Origin of migrants to USA**



**Fig. 8**

**Origin of migrants to USA**



**Fig. 9**

- (a) Using Fig. 8, complete the following paragraph.

Of the four continents, the one with the largest number of migrants to USA  
between 1999 and 2008 was ..... The continent with the lowest  
number during this period was ..... The year when the smallest  
number of people migrated to USA was ..... The number of migrants to  
USA has gradually increased, however there was an unusually low number of migrants  
in the year..... [4]

- (b) Figs 8 and 9 show similar information in different ways. Give **one** advantage of each method.

Advantage of Fig. 8 .....  
.....  
..... [1]

Advantage of Fig. 9 .....  
.....  
..... [1]

- (c) Figs 8 and 9 provide information about changes affecting the population of USA. Give **two** other pieces of information that would help you decide whether the total population of USA was increasing or decreasing.

1 .....  
.....  
2 .....  
..... [2]

[Total: 8 marks]

- 6 Fig. 10 gives information about energy supplies in Swaziland, an LEDC in southern Africa.

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### Local renewable energy in Swaziland

Swaziland imports more than half of its energy requirements. The majority of this is fossil fuels, e.g. coal and oil. Importing energy is bad for the economy. Local energy sources are primarily from biomass (organic matter such as wood and waste from the sugar cane and timber industries). Wood is the only source of energy for 70% of households in rural areas and many households on the edge of urban areas.

Solar and biomass are local, renewable energy sources for private individuals and small industries.

#### Solar

- Equipment is expensive
- Small electricity generating equipment provides power for lighting, radios, black and white TVs but not for high power requirements such as colour TVs or cooking
- Solar hot water systems are an effective way of heating water and can heat large volumes such as swimming pools
- Many parts of Swaziland have a relatively sunny climate

#### Biomass

- Collection of firewood is a burden on rural women
- Increasing population and overuse is causing deforestation, lack of fuel and soil erosion
- Uncontrolled open fires cause respiratory illness and accidents in rural areas
- New wood stoves are efficient

Fig. 10

- (a) (i) What is meant by *renewable* energy?

.....  
 ..... [1]

- (ii) Using only information from Fig. 10, give **one** example of a renewable energy source and **one** example of a non-renewable energy source.

renewable source.....

non-renewable source ..... [1]

- (b) Fig. 10 gives information about local energy sources in Swaziland. In your own words, discuss the advantages and disadvantages of local solar and biomass energy sources for:

- (i) a subsistence farmer in a rural area;

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 ..... [4]

- (ii) a hotel owner.

.....  
 .....  
 .....  
 .....  
 ..... [2]

[Total: 8 marks]

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*Copyright Acknowledgements:*

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