



**Cambridge Assessment International Education**  
Cambridge International General Certificate of Secondary Education

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**GEOGRAPHY**

**0460/42**

Paper 4 Alternative to Coursework

**February/March 2019**

**1 hour 30 minutes**

Candidates answer on the Question Paper.

Additional Materials:     Ruler  
                                  Protractor  
                                  Calculator

**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 an HB pencil for any diagrams or graphs.

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

**DO NOT WRITE IN ANY BARCODES.**

Write your answer to each question in the space provided.

If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.

Answer **all** questions.

The Insert contains Figs. 1.1, 1.2 and 1.4 and Tables 1.1, 1.2, 1.3 and 1.4 for Question 1, and Fig. 2.1 and Table 2.2 for Question 2.

The Insert is **not** required by the Examiner.

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

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.

This syllabus is regulated for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **18** printed pages, **2** blank pages and **1** Insert.

- 1 Students from a town in Portugal were learning about different types of shops and services. The students did fieldwork to compare shops and services in the old town centre with those in a new shopping area on the edge of the town.

They decided to test the following hypotheses:

**Hypothesis 1:** *There are a greater number and variety of shops and services in the town centre than in the shopping area on the edge of the town.*

**Hypothesis 2:** *The reasons why people go to the town centre shops and the shopping area on the edge of the town have the same importance.*

- (a) To find out more about the shops and services the students drew land use maps of the town centre shopping area and the shopping area on the edge of the town. Fig. 1.1 (Insert) shows **part** of the town centre shopping area and Fig. 1.2 (Insert) shows the shopping area on the edge of the town.

- (i) Use the key to identify the type of shop located 90 m north west of the shop selling bread and cakes in the town centre (Fig. 1.1).

..... [1]

- (ii) Give **two** examples of services located in the area of the town centre shown in Fig. 1.1.

1 .....

2 ..... [2]

- (iii) Suggest **two** reasons why many shops and services are located in a town centre.

1 .....

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2 .....

..... [2]

(iv) The students used their maps to count the number of different shops and services in the two shopping areas. Their results are shown in Table 1.1 (Insert).

What conclusion would the students make to **Hypothesis 1**: *There are a greater number and variety of shops and services in the town centre than in the shopping area on the edge of the town?*

Support your answer with evidence from Table 1.1 and Figs. 1.1 and 1.2.

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(b) The students knew that shops could be classified into two main groups: those which sold convenience (low-order) goods and those which sold comparison (high-order) goods.

(i) Which **two** of the following statements about different types of goods are correct? Tick (✓) your choices in the table below.

	Tick (✓)
Convenience goods are bought more frequently than comparison goods	
Convenience goods are produced locally, and comparison goods are imported	
Convenience goods are usually cheaper than comparison goods	
Convenience goods are more difficult to transport than comparison goods	
Convenience goods are better quality than comparison goods	

[2]

(ii) From Fig. 1.2 (Insert) give an example of a type of shop in the edge of the town shopping areas which sells

convenience goods .....

comparison goods. ....

[2]

- (iii) The students classified the shops and services in the two shopping areas. Their classification results are shown in Table 1.2 (Insert).

Use the results from Table 1.2 to **draw the graph** for the edge of town shopping area in Fig. 1.3 on the page opposite. [3]

Results of classification in the two shopping areas

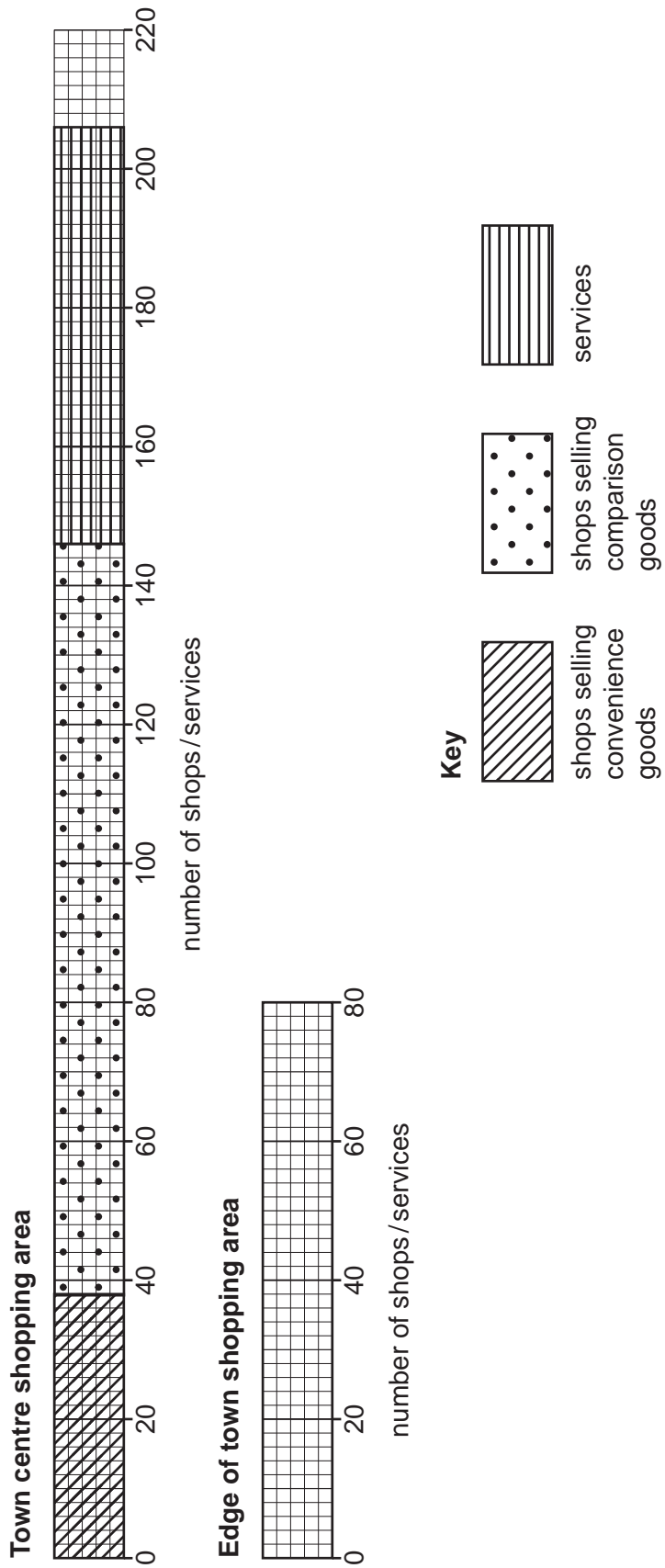


Fig. 1.3

(c) To test **Hypothesis 2**: *The reasons why people go to the town centre shops and the shopping area on the edge of the town have the same importance*, the students decided to use a questionnaire with people in the two shopping areas. This questionnaire is shown in Fig. 1.4 (Insert).

(i) Their teacher approved the questionnaire. Suggest **three** pieces of advice which she gave to the students about using their questionnaire with people who are shopping.

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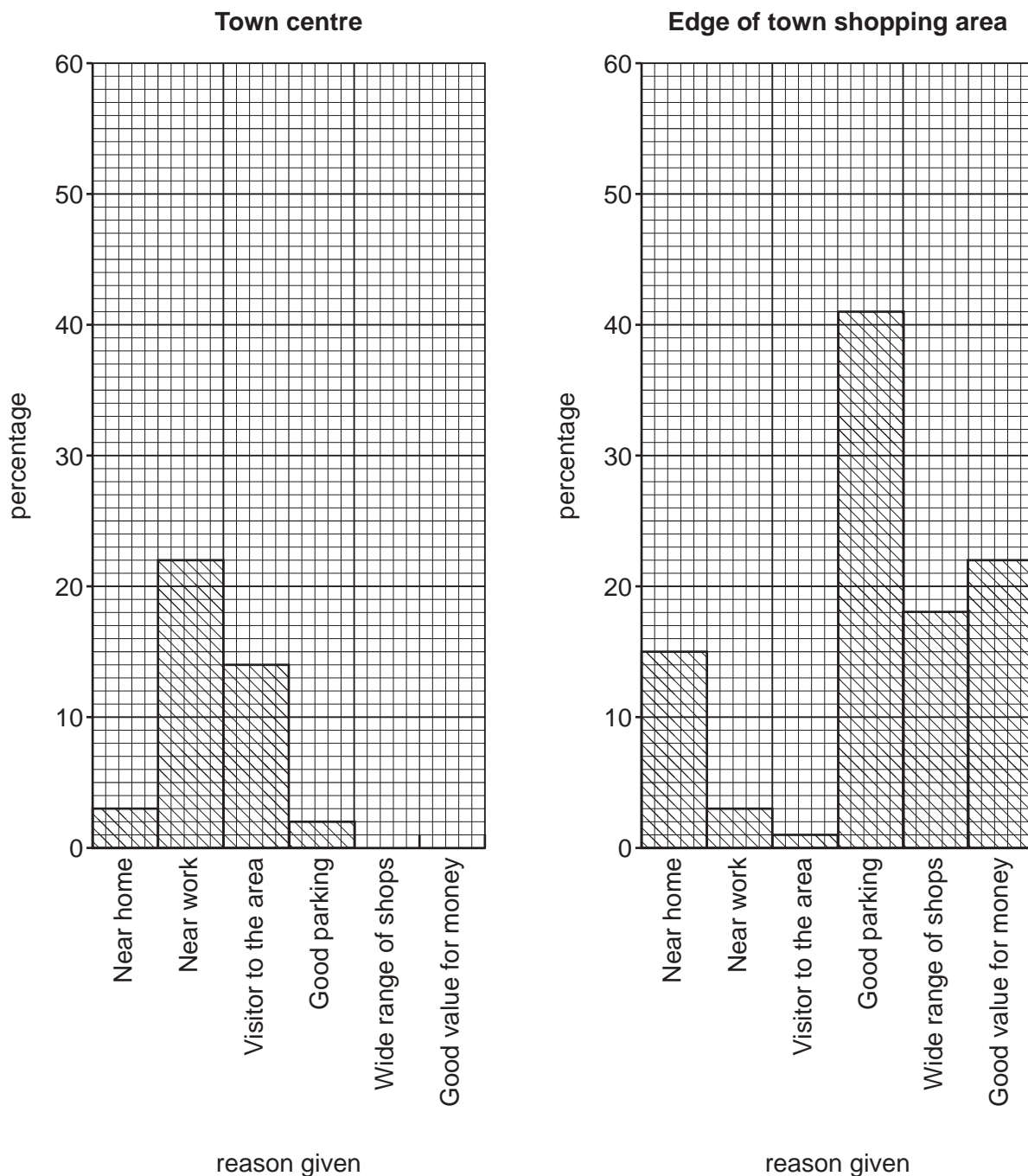
..... [3]

(ii) Table 1.3 (Insert) shows the results of Question 1 in the questionnaire.

Use the results from Table 1.3 (Insert) to **complete the graph** for the town centre in Fig. 1.5 below. [2]

**Answers to Question 1:**

**Why did you come shopping here today?**



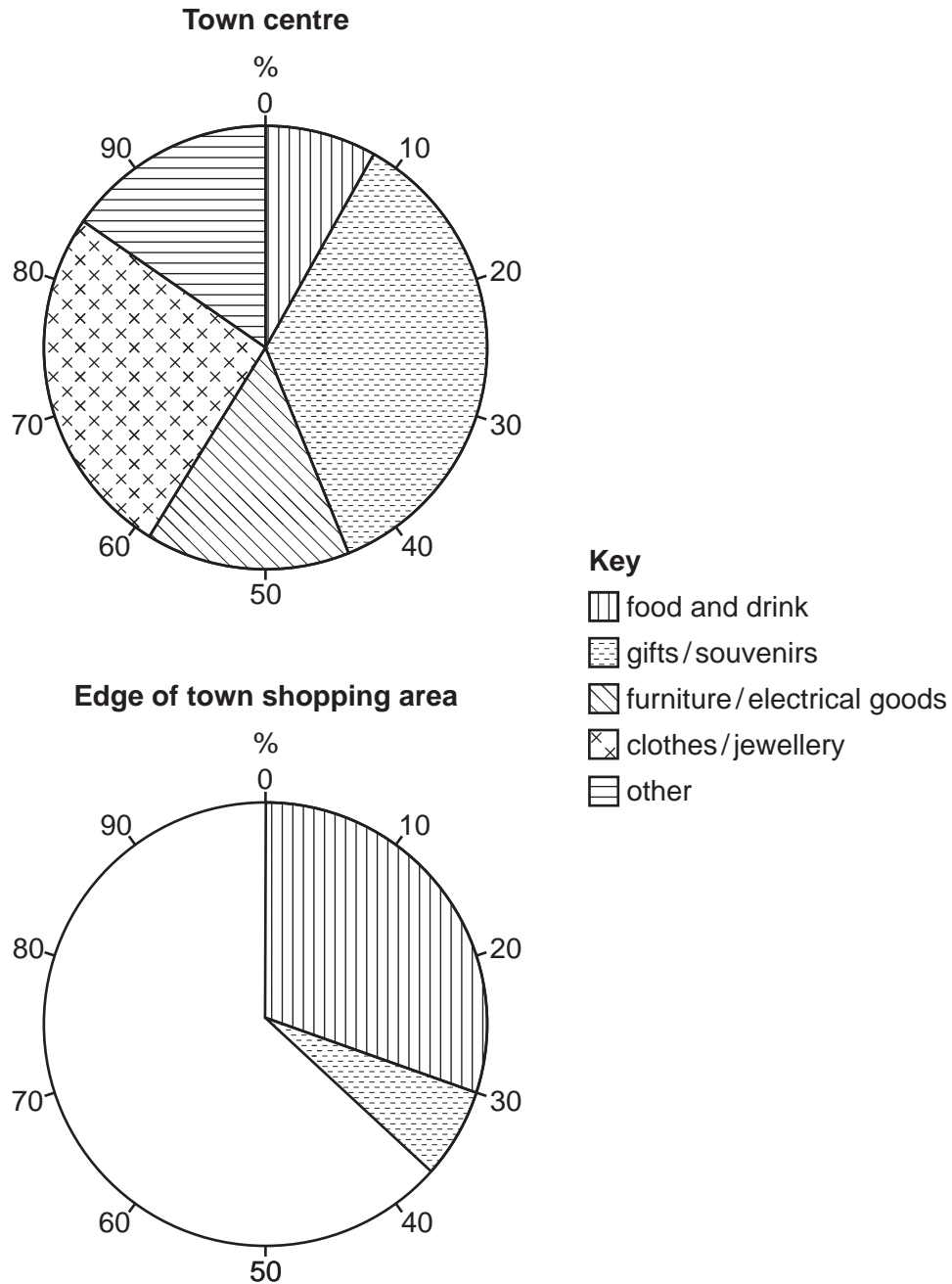
**Fig. 1.5**

(iii) Table 1.4 (Insert) shows the results of Question 2 in the questionnaire.

Use the results from Table 1.4 (Insert) to **complete the pie graph** for the edge of town shopping area in Fig. 1.6 below. [3]

**Answers to Question 2:**

**What are the main items you are buying here today?**



**Fig. 1.6**



(iv) Do the results of the questionnaire support **Hypothesis 2**: *The reasons why people go to the town centre shops and the shopping area on the edge of the town have the same importance?*

Use evidence from Figs. 1.5 and 1.6 and Tables 1.3 and 1.4 to support your conclusion.

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(d) The students wanted to find out more about shopping patterns in the two shopping areas. Suggest **another** hypothesis which they could test and a question which they could add to their questionnaire to test this additional hypothesis.

Hypothesis

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Question

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..... [2]

[Total: 30]

- 2 Students from a school in Dorset in south west England carried out fieldwork to investigate the characteristics of two contrasting local beaches. One is a long beach on a straight coast and the other beach is in a sheltered bay surrounded by cliffs.

- (a) Before they began their fieldwork their teacher reminded them of the need to be safe near the sea.

The table below shows three possible dangerous situations. Suggest **one** different precaution that the students could take to reduce the danger in each situation.

Possible danger	Possible precaution
High cliff behind the beach	..... ..... .....
Powerful waves breaking at the beach	..... ..... .....
Heavy rain is forecast for the day of the fieldwork	..... ..... .....

[3]

The students tested the following hypotheses in their fieldwork on the two beaches:

**Hypothesis 1:** *The bay beach has a steeper profile than the long beach.*

**Hypothesis 2:** *Beach material gets larger further away from the sea.*

(b) To investigate **Hypothesis 1** the students measured the changing profile from the sea to the back of the beach. Fig. 2.1 (Insert) shows their method.

(i) Describe how the students measured the beach profile.

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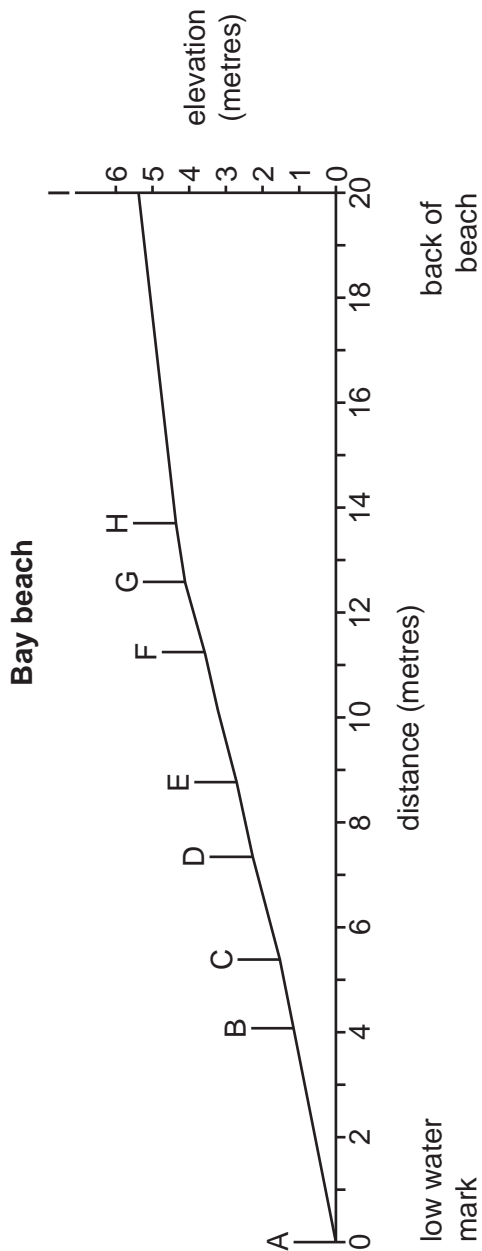
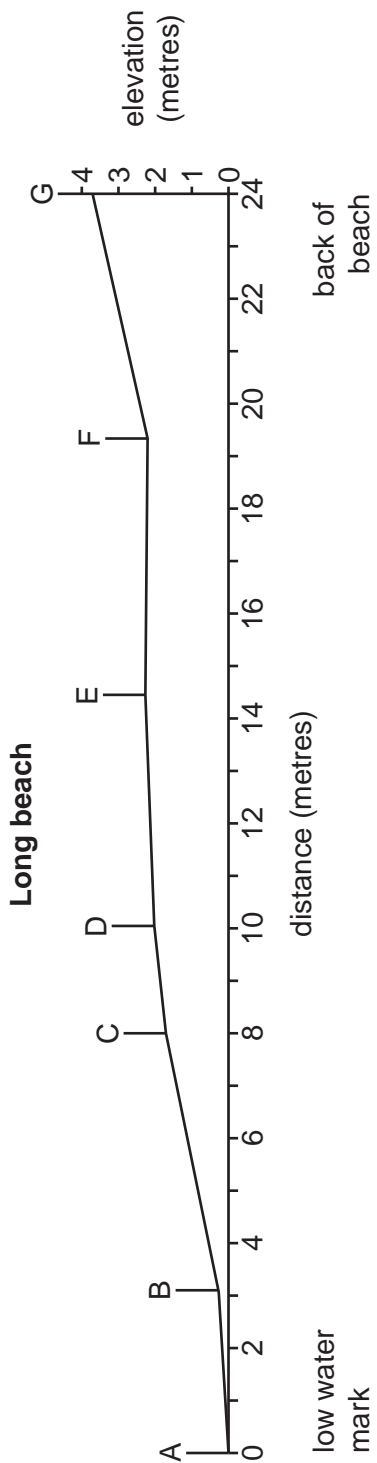
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(ii) The results of the students' measurements on both beaches are shown in Fig. 2.2.

**Beach profiles**



**Key**

A | site of measurement marker pole

**Fig. 2.2**

Is **Hypothesis 1**: *The bay beach has a steeper profile than the long beach* **true**? Support your conclusion with evidence from Fig. 2.2.

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(c) To investigate **Hypothesis 2**: *Beach material gets larger further away from the sea*, the students measured the size of a sample of beach material every two metres from the low water mark to the back of the beach.

(i) A completed data recording sheet for one site is shown in Table 2.1 below.

**Table 2.1**

**Data recording sheet**

Location: Long beach	
Distance from low water mark: 6 m	
Beach material sample	Size of beach material (mm)
Sample 1	8
Sample 2	19
Sample 3	9
Average size	12

Describe a possible method the students used to collect the data shown in Table 2.1.

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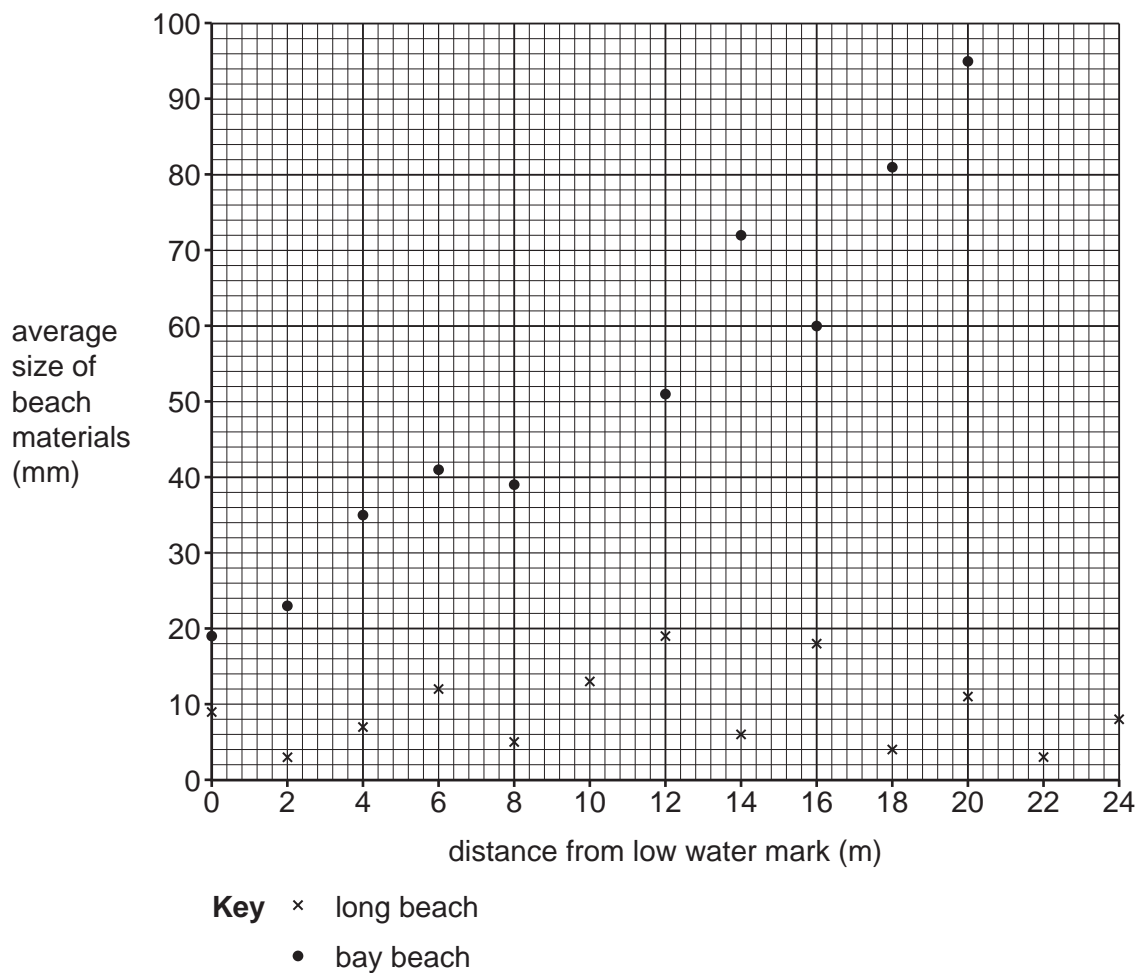
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..... [3]

(ii) The average size of all the beach material samples are shown in Table 2.2 (Insert).

On Fig. 2.3 below, **plot the result** for 10 metres from the low water mark on the bay beach. [1]

**Average size of beach materials at the two beaches**



**Fig. 2.3**

(iii) Do the results of the fieldwork agree with **Hypothesis 2: Beach material gets larger further away from the sea?** Tick your decision below and support your decision with data from Table 2.2 and Fig. 2.3.

	Tick (✓)
Results agree with Hypothesis 2 for both beaches	
Results agree with Hypothesis 2 for one beach	
Results agree with Hypothesis 2 for neither beach	

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(iv) Suggest why the size of beach material varies between low water mark and the back of the beach.

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..... [2]

(v) Suggest **two** ways the students could have improved the fieldwork methods to make their results more reliable.

1 .....

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2 .....

..... [2]

- (d) (i) The students planned an additional piece of fieldwork to investigate if wave frequency affected the beach profile and size of beach material.

Describe a method to measure wave frequency.

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- (ii) Destructive and constructive waves have different wave frequencies.  
Describe how destructive and constructive waves are different.

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[Total: 30]









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