Cambridge IGCSE

CANDIDATE NAME

CENTRE NUMBER

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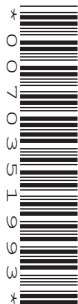
GEOGRAPHY **0460/22**

Paper 2 **February/March 2019**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler
Protractor
Plain paper
Calculator

1:50 000 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 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 the booklet. The question number(s) must be clearly shown.

Answer **all** questions.

The Insert contains Figs. 4.1 and 4.2 for Question 4, and Fig. 6.2 for Question 6.
The Survey Map Extract and the Insert are **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.

Cambridge Assessment
International Education

[Turn over

1 Study the map extract for Åhus, Sweden. The scale is 1:50 000.

(a) Fig. 1.1 shows the area around the mouth of the Möllerännan river in the main settlement of Åhus. Study Fig. 1.1 and the map extract, and answer the questions below.
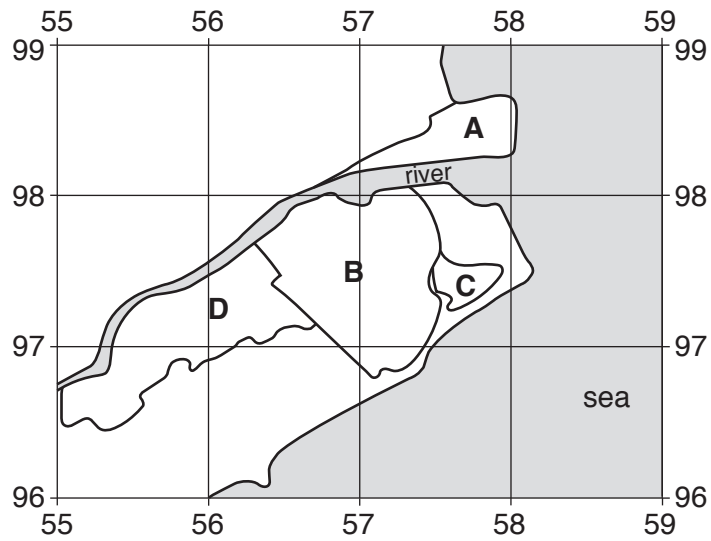
Fig. 1.1

Using the map extract, identify the land use in each of the following areas shown on Fig. 1.1:

(i) area **A**

.... [1]

(ii) area **B**

.... [1]

(iii) area **C**

.... [1]

(iv) area **D**.

.... [1]

(b) Look at the Möllerännan river in the south west of the map extract. Describe the human and physical features of the river.

....

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.... [4]

(c) Describe the shape of the coastline between the main settlement at Åhus and the north edge of the map.

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.... [2]

(d) The location of the small settlement at Fårabäck is shown on Fig. 1.2.
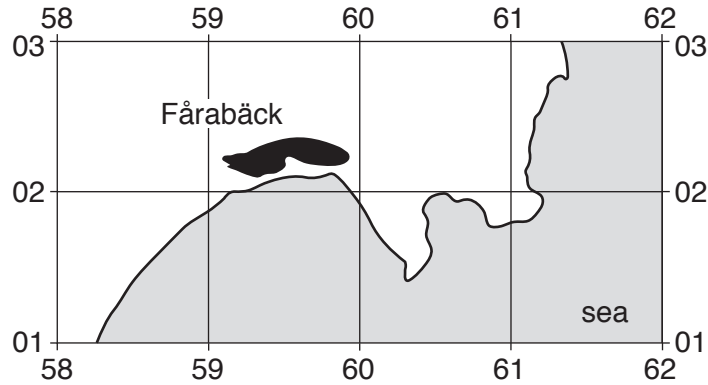
Fig. 1.2

Give map evidence that suggests that Fårabäck is a tourist settlement.

....

....

....

.... [2]

(e) Find the small settlements of Nygård (6004) and Landön (6303) in the north east of the map extract.

(i) Measure the distance along the public road from the north edge of the map at Nygård to the end of the road at Landön. Give your answer in metres.

.... metres   [1]

(ii) Give the compass direction **from** the end of the road at Nygård **to** the end of the road at Landön.

....   [1]

(iii) Measure the bearing **from** the end of the road at Nygård **to** the end of the road at Landön.

.... degrees   [1]

(iv) What is the six-figure grid reference of the end of the public road at Landön? Tick **one** box below.

	Tick (✓)
031632	
642042	
632031	
033634	
632042	

[2]

(f) Fig. 1.3 shows the area of a military firing range in the centre of the map extract. The area is surrounded by a thick, dashed blue line.
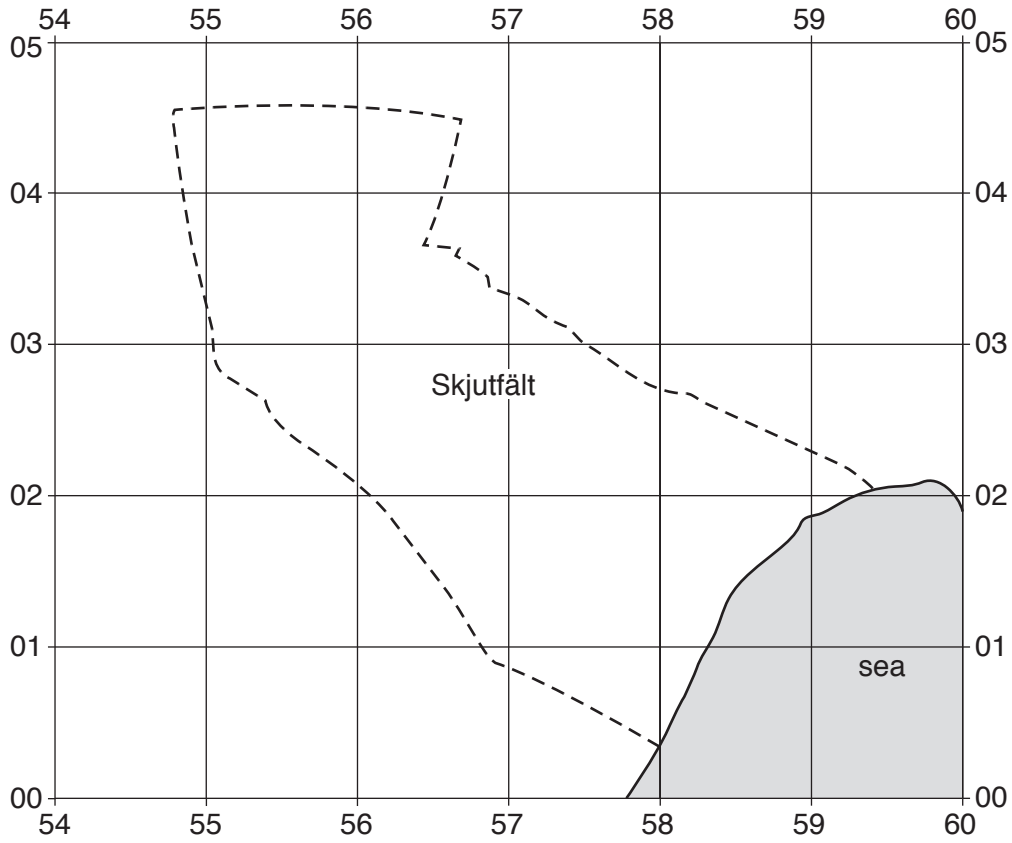
Fig. 1.3

Describe the relief of the area of the firing range.

....

....

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....

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....

....

.... [3]

[Total: 20]

2   Fig. 2.1 shows population migration to and from California, USA, between 2001 and 2013.
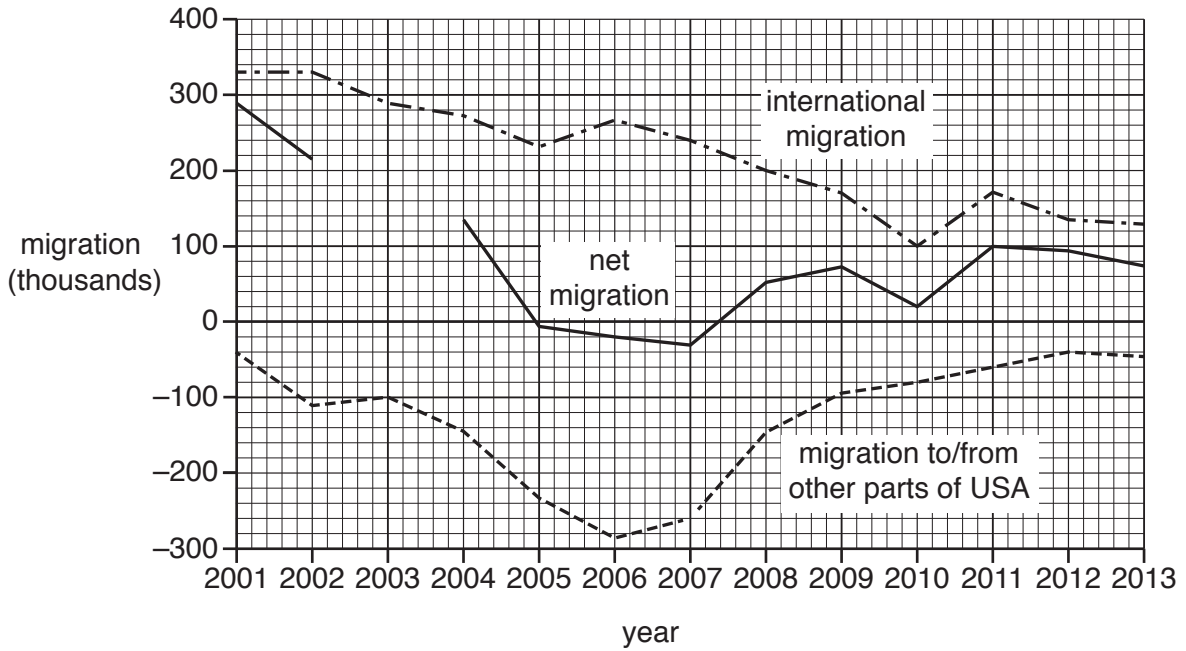
Fig. 2.1

(a) (i) Complete Fig. 2.1 to show net migration of 210 000 in 2003.   [1]

   (ii) Using Fig. 2.1, describe **international** migration to and from California between 2001 and 2013. Use statistics and years in your answer.

   ....

   ....

   ....

   ....

   ....

   .... [3]

   (iii) Migration has caused an increase in California's total population between 2001 and 2013. Use information from Fig. 2.1 to explain this.

   ....

   ....

   .... [1]

(b) Fig. 2.2 shows population migration for five areas of California from 2012 to 2013.
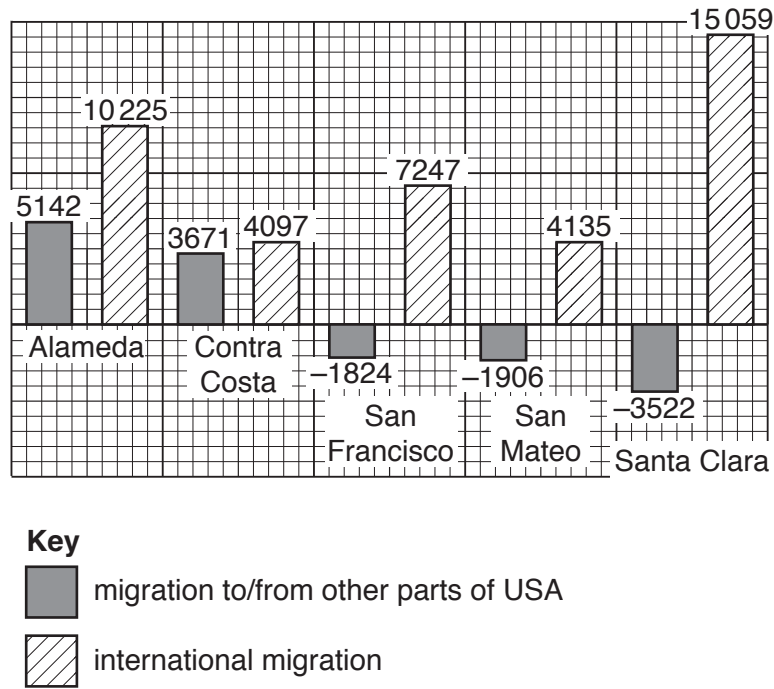
Fig. 2.2

(i) Calculate the population change due to migration in Contra Costa.

.... [1]

(ii) Which of the areas shown on Fig. 2.2 had the greatest number of people leaving for other areas of the USA?

.... [1]

(iii) Which of the areas shown on Fig. 2.2 had the greatest population growth due to migration?

.... [1]

[Total: 8]

3 Fig. 3.1 shows air pollution by fine particles in the area around Delhi for one day.
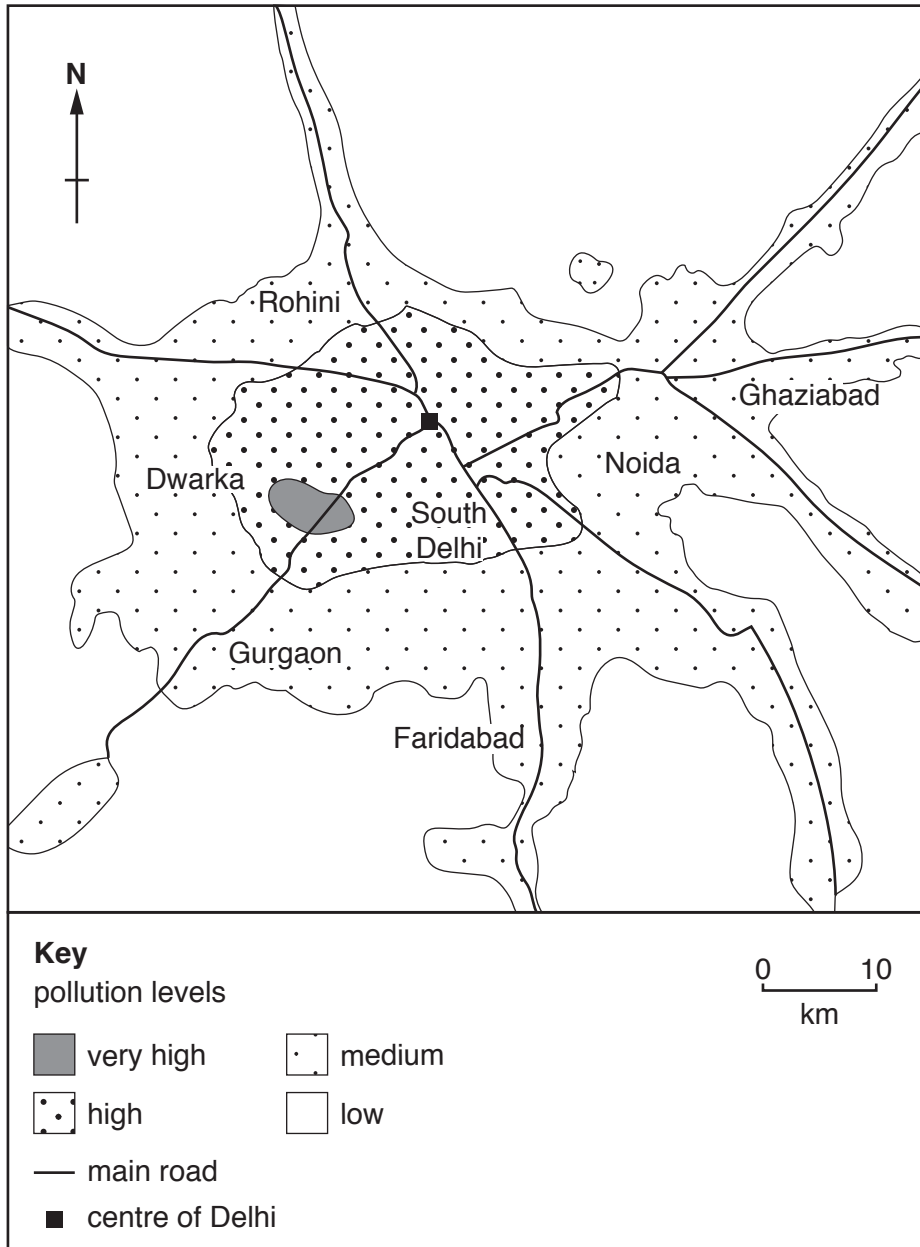
Fig. 3.1

(a) Describe the distribution of air pollution shown in Fig. 3.1.

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.... [3]

(b) Fig. 3.2 shows the pattern of air pollution by fine particles in Delhi for the same day.

Time

| 00:00 | | | | 06:00 | | | | | 12:00 | | | | | | 18:00 | | | | 24:00 |

| H | M | M | M | M | M | M | M | M | M | H | H | H | M | M | M | M | M | H | H | H | VH | VH | VH |
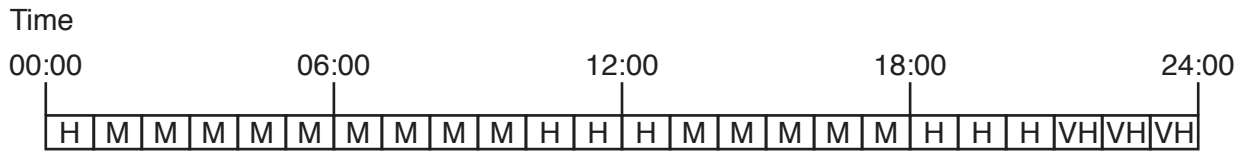
Key

pollution level

L   low   M   medium   H   high   VH   very high

Fig. 3.2

Describe the pattern of air pollution during this day.

....

....

....

....[2]

(c) Vehicles may be an important source of air pollution by fine particles in Delhi. Using Figs. 3.1 and 3.2, give evidence for and against this.

Evidence **for** vehicles being an important source of air pollution.

....

....

....

....

Evidence **against** vehicles being an important source of air pollution.

....

....

....

.... [3]

[Total: 8]

4 (a) Name the following processes which operate in a drainage basin. Choose your answers from the list below:

interception

infiltration

throughflow

groundwater flow

overland flow

(i) water moving through the rock

………………………………………… [1]

(ii) rain soaking into the ground.

………………………………………… [1]

(b) Figs. 4.1 and 4.2 (Insert) are photographs which show the same river in Madeira on two different days.

(i) Using Fig. 4.1, describe what has been done to the channel of the river to reduce flooding and erosion.

....

....

....

.... [2]

(ii) Describe and explain the differences in the river and its load on the day shown in Fig. 4.1 and on the other day shown in Fig. 4.2.

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....[4]

[Total: 8]

5 Study Fig. 5.1, which shows instruments **A** and **B**, which are used to measure the weather.
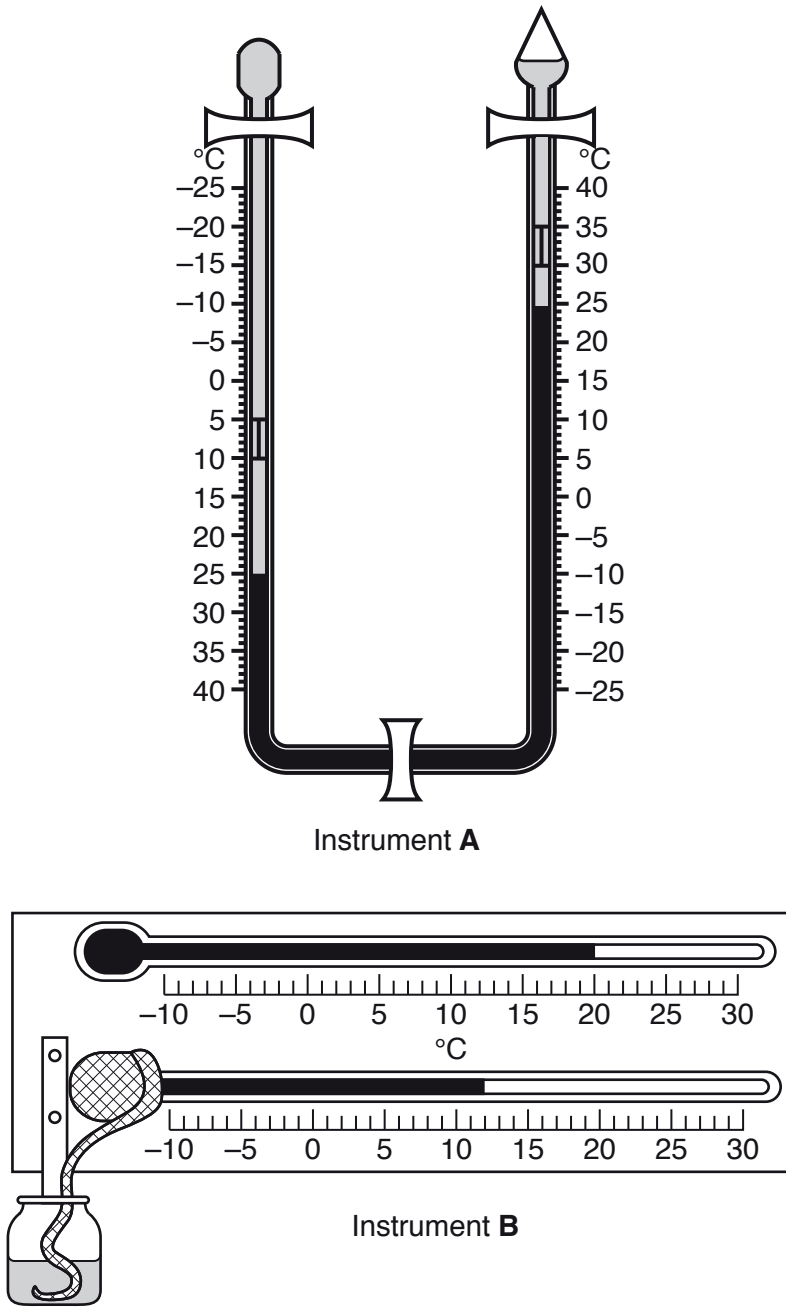

Instrument **A**

Instrument **B**

Fig. 5.1

(a) Name the two weather instruments.

    (i) Instrument **A** ………………………………..……………

    (ii) Instrument **B** ………………………………..……………   [2]

(b) Using the information shown on Instrument **A**, state:

    (i) the present temperature

      ....

    (ii) the maximum temperature since the instrument was reset

      ....

    (iii) the minimum temperature since the instrument was reset.

      ....   [3]

(c) Look at the information shown on Instrument **B**. Does this show that the air is saturated? Tick the correct box below.

	Tick (✓)
air is saturated (relative humidity is 100%)	
air is unsaturated (relative humidity is less than 100%)	

Using evidence from Instrument **B** on Fig. 5.1, explain your choice.

....

....

....

....

....

....

.... [3]

[Total: 8]

6 (a) Fig. 6.1 shows an agricultural system.

Inputs	Processes	Outputs
Examples: climate machinery soil	Examples: harvesting sowing weeding	Examples: animals for sale meat milk ....

Fig. 6.1

Complete Fig. 6.1 by adding each of the following examples in the correct column.

crops   chemical fertiliser

[2]

(b) Fig. 6.2 (Insert) is a photograph which shows an agricultural area in South Africa.

(i) Describe the fields and land use shown in the photograph.

....

....

....

....

....

....

.... [3]

(ii) Give evidence from the photograph which shows that the agriculture in the area is:

irrigated (artificially watered)

....

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....

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commercial.

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.... [3]

[Total: 8]

Additional Pages

If you use the following lined pages to complete the answer(s) to any question(s), the question number(s) must be clearly shown.

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