Diploma Programme
Programme du diplôme
Programa del Diploma

Economics
Higher level
Paper 3

Wednesday 2 May 2018 (morning)

Candidate session number

1 hour

Instructions to candidates

- Write your session number in the boxes above.
- You are permitted access to a calculator for this paper.
- Do not open this examination paper until instructed to do so.
- Answer two questions.
- Answers must be written within the answer boxes provided.
- Unless otherwise stated in the question, all numerical answers must be given exactly or correct to two decimal places.
- You must show all your working.
- The maximum mark for this examination paper is **[50 marks]**.

2218 – 5107

20 pages

Answer **two** questions. Each question is worth [25 marks]. Answers must be written within the answer boxes provided.

1. *Note that widgets and pidgets are imaginary products.*

In the country of Burbia, the demand and supply of widgets are given by the functions

$$Qd = 249 - 4P$$
$$Qs = 150 + 14P$$

where Qd is the quantity demanded per month, Qs is the quantity supplied per month and P is the price per widget in dollars ($).

(a) Calculate the equilibrium price and quantity per month. [2]

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(b) Calculate the excess demand/excess supply (state which of these) at a price of $8.50. [2]

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(c) Calculate the price at which excess demand of 18 widgets would result. [2]

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(Question 1 continued)

A demand curve is drawn under the assumption of *ceteris paribus*.

(d) Using an example, outline why the assumption of *ceteris paribus* is necessary when analysing the effect of a change in price on the quantity demanded of a product. [2]

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(e) Widgets and Pidgets have negative cross price elasticity of demand (XED). Explain how the demand function for Widgets, Qd = 249 – 4P, is likely to change as a result of an increase in the price of Pidgets. [2]

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The demand for widgets is considered to be unit elastic at the current price.

(f) Outline the meaning of the term *unit elastic demand*. [2]

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will not be marked.

(Question 1 continued from page 3)

(g) Explain **two** determinants of the price elasticity of demand (PED). [4]

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(h) Two products are in competitive supply. Using an example, outline how the supply for one of them is likely to be affected by an increase in the price of the other. [2]

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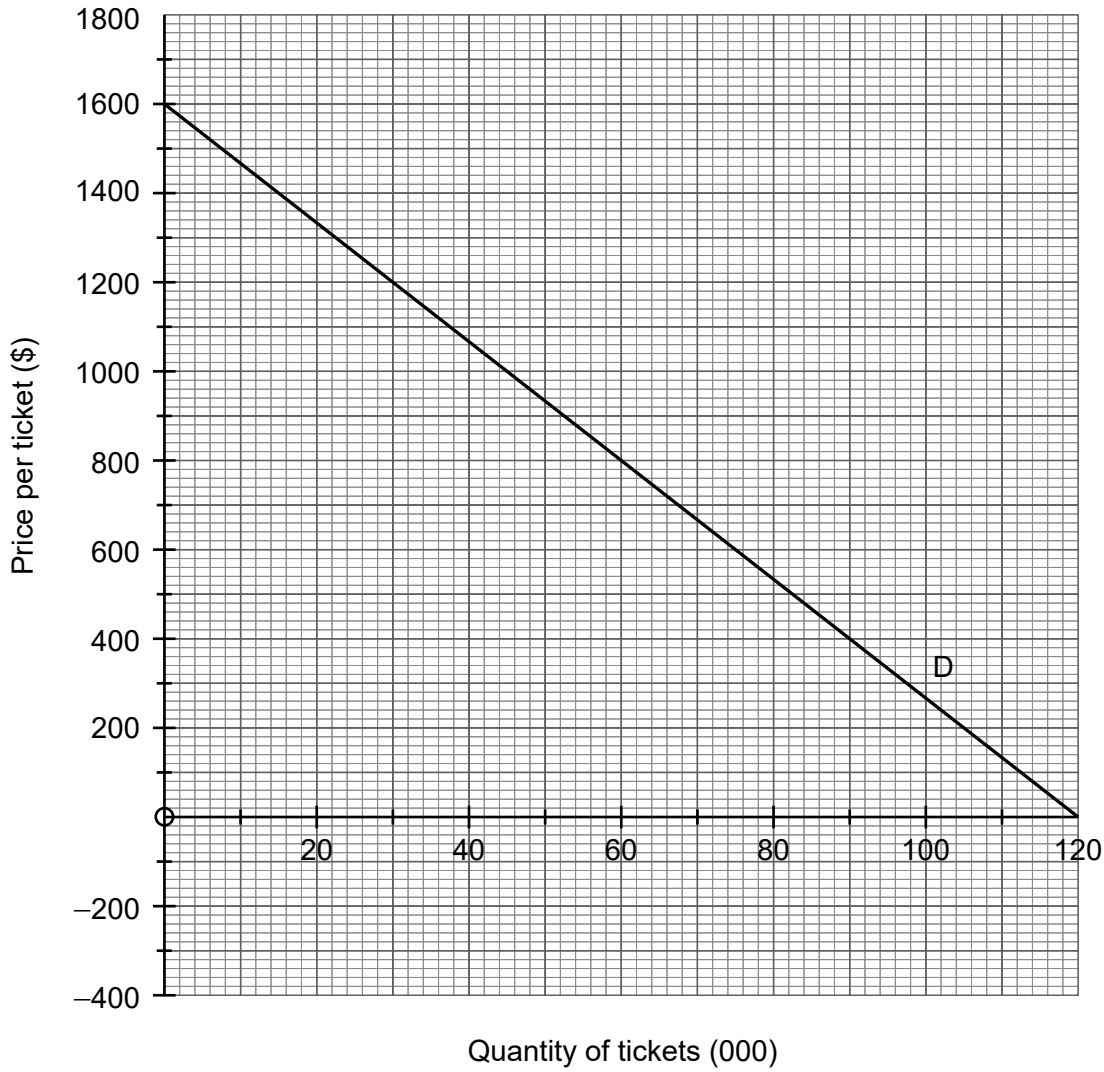
(Question 1 continued)

The final of the 2018 Football World Cup is expected to be held in the Luzhniki stadium, Moscow. The capacity of the stadium is 80 000. The expected cost of holding the final is US$12 million, which is not dependent on the number of people attending the match. All tickets will be sold for the same price.



(i) State the value of the price elasticity of supply (PES) for tickets to the 2018 Football World Cup final. [1]

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(Question 1 continued)

(j) In the diagram on **page 6** draw and label the supply curve for tickets at the 2018 Football World Cup final. [1]

(k) Draw and label the marginal revenue (MR) curve for the 2018 Football World Cup final. [1]

(l) Using the diagram on **page 6** and your answers to parts (j) and (k), explain how the organizers could achieve their goal of profit maximisation. [4]

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will not be marked.

2. The following information in parts (a) to (d) refers to the economy of Country Alpha.

Table 1

Population aged over 16 years	Employed	Unemployed
20.45 million	13.72 million	1.12 million

(a) Using **Table 1** above, calculate the unemployment rate. [2]

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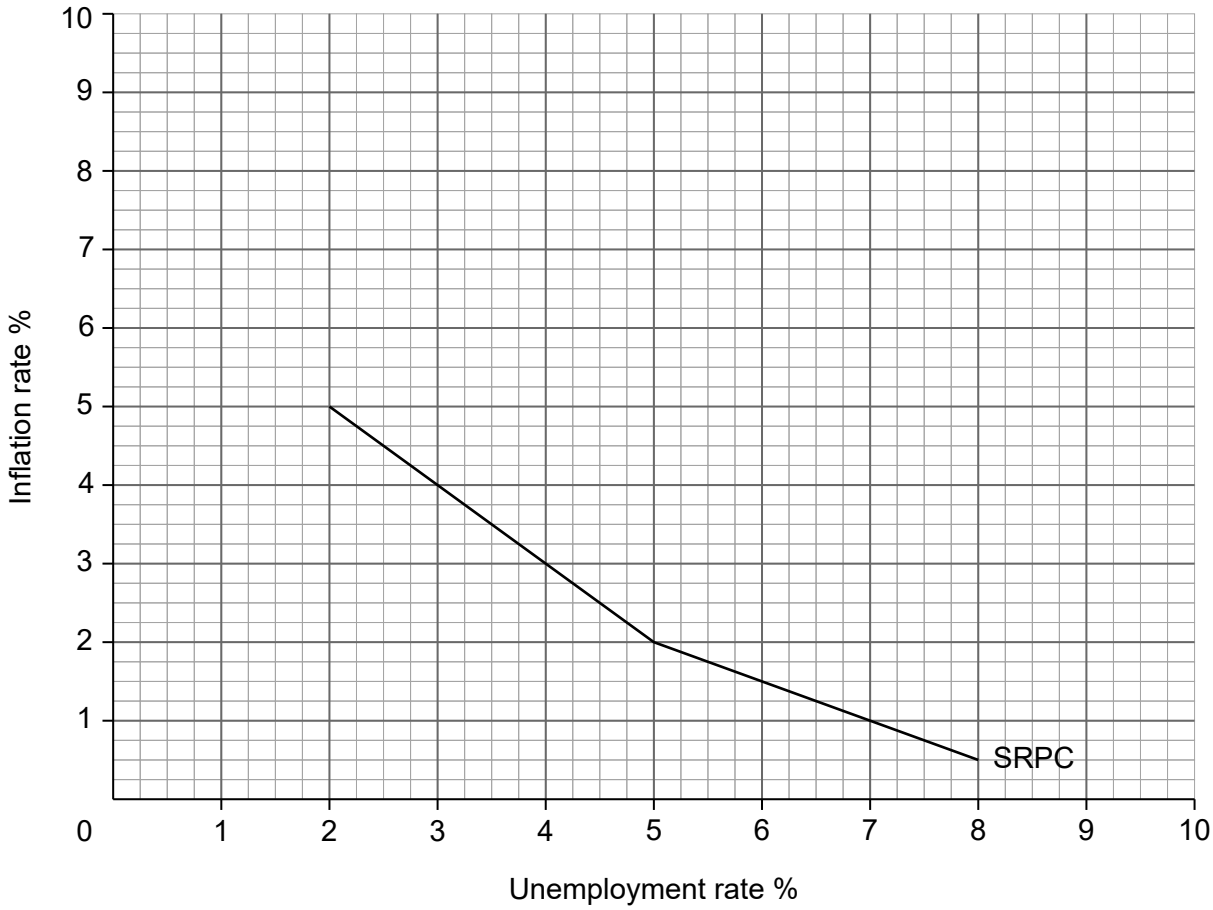
(Question 2 continued)

The graph below shows the short-run Phillips curve (SRPC) for Country Alpha.



(b) (i) Using the graph above, determine short-run values for the unemployment rate in 2016 **and** the inflation rate in 2018. Enter your answers in **Table 2** below. [1]

Table 2

Year	Unemployment rate	Inflation rate
2016		3 %
2017	5 %	2 %
2018	7 %	

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(Question 2 continued)

(ii) The government in Country Alpha reduces income taxes in 2019.
Using information from the graph on **page 10** to support your answer, explain the likely effect on the inflation rate and the unemployment rate. [4]

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(c) The natural rate of unemployment in Country Alpha is 5 %.

On the diagram on **page 10** draw and label the long-run Phillips curve (LRPC). [1]

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The price of oil is expected to rise significantly, causing a sustained increase in energy costs.

(d) (i) Describe the likely effect of this sustained cost increase on the short-run Phillips curve (SRPC). [1]

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(ii) Explain the reason for your answer to part (d) (i) above. [2]

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(Question 2 continued)

The following data relate to Country Beta (all figures are in $ billions).

Table 3

Item	$ billion
Consumption	71
Savings	8
Taxation	30
Government expenditures on goods and services	32
Exports	12
Imports	15
Nominal GDP	109

(e) (i) Using the data in **Table 3** above, calculate the level of investment. [2]

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In Country Beta, investment by firms increases in the first quarter of 2019.

(ii) State **two** possible reasons for the increase in investment by firms. [2]

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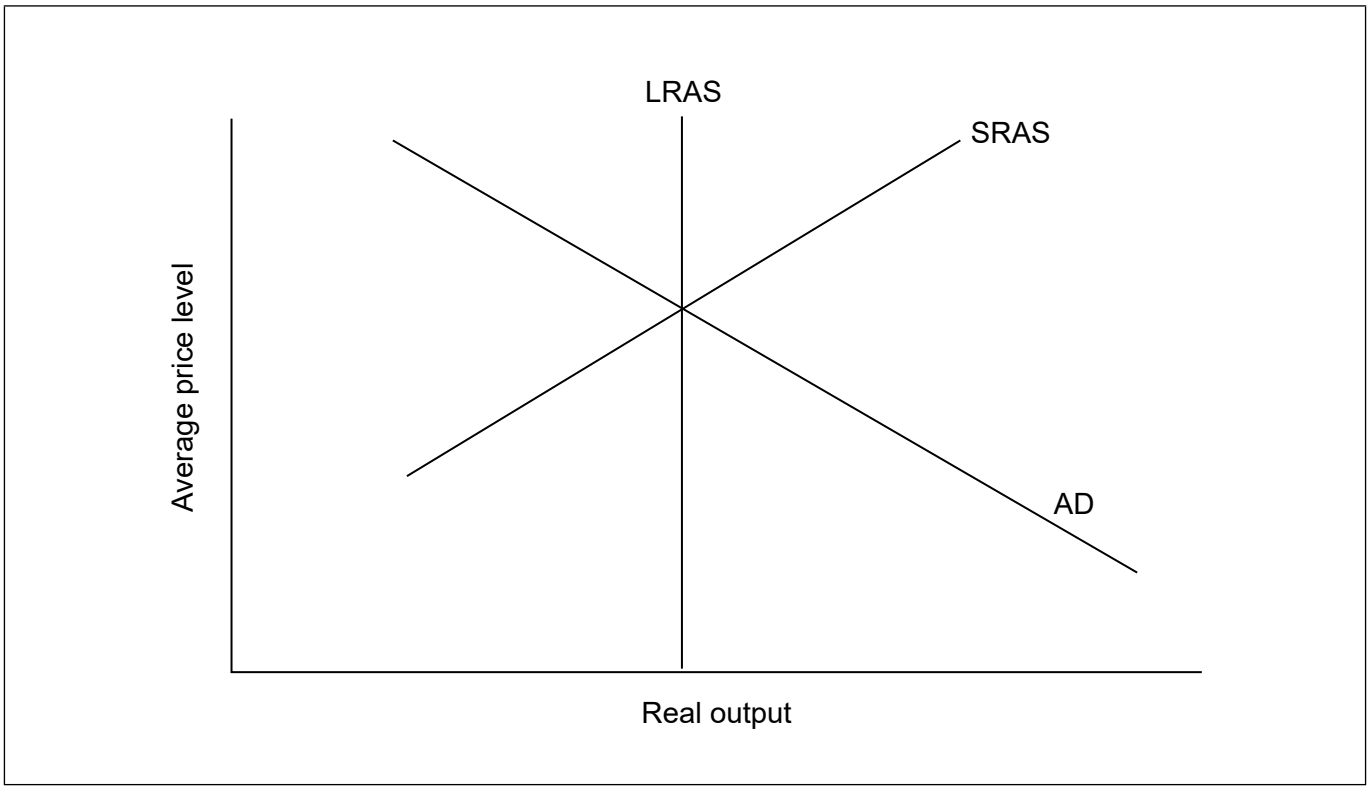
(Question 2 continued)

The following diagram illustrates the long-run aggregate supply curve (LRAS), short-run aggregate supply curve (SRAS) and aggregate demand curve (AD) for Country Beta before the increase in investment.



(iii) The increase in investment results in both short-run and long-run effects on the economy. On the diagram above, draw and label the two curves that illustrate these effects. [2]

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(Question 2 continued)

(f) Calculate the real growth rate in 2018 using the figures in **Table 4** below. [2]

Table 4

Year	Nominal GDP ($ billion)	GDP deflator
2017	107	101.2
2018	109	99.4

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(Question 2 continued)

Country Beta is assumed to be a closed economy with no government sector. Consumption in Beta increases by $0.80 for every $1 increase in national income. In the first quarter of 2019, investment rises by $2 billion.

(g) (i) Calculate the maximum possible increase in gross domestic product (GDP) that could result from the rise in investment. [2]

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(ii) Country Delta is an open economy with a government sector. Investment rises by $2 billion in both Delta and Beta. Explain how the size of the multiplier and the resulting effect on gross domestic product (GDP) might be different in the two countries. [4]

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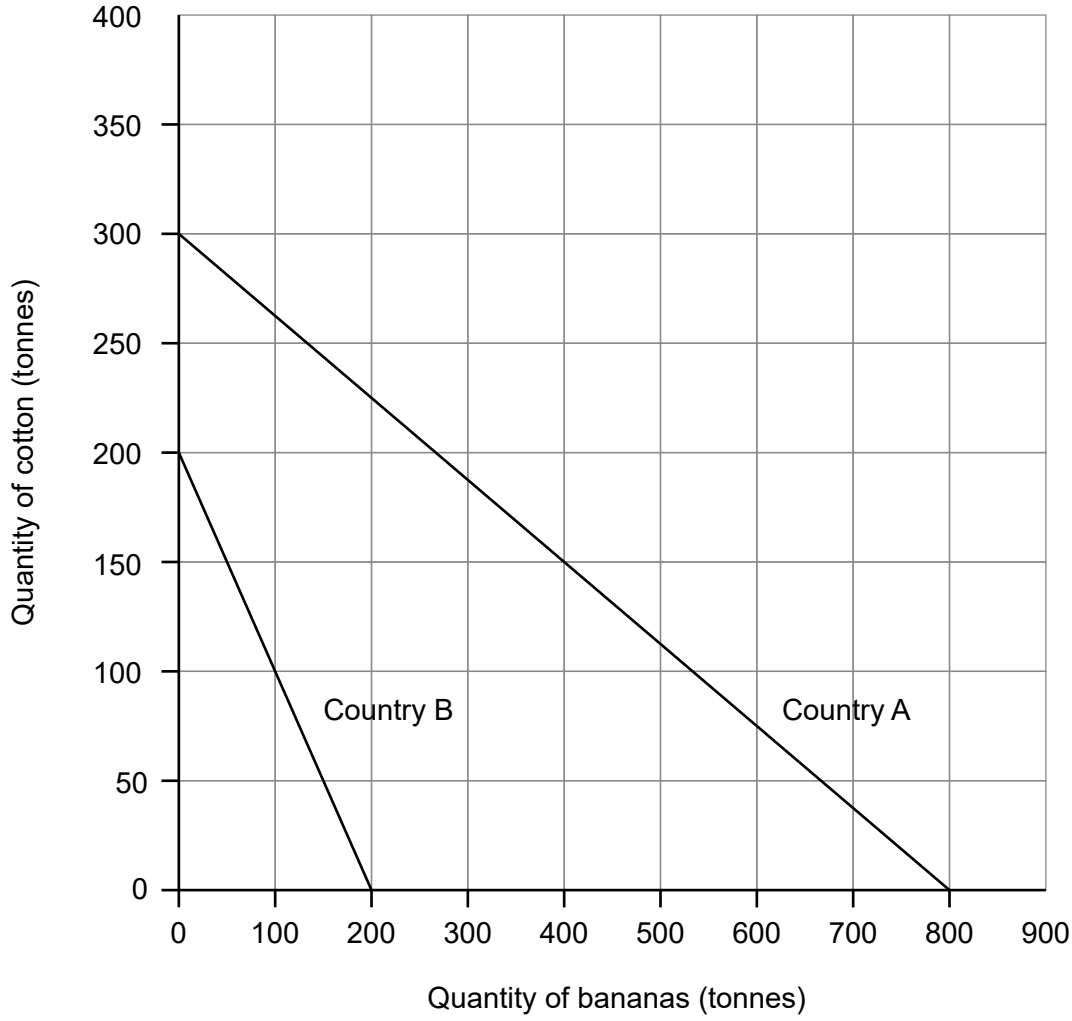
3. The following diagram illustrates the production possibilities of two countries, Country A and Country B, in the production of cotton and bananas.



(a) Using the diagram, calculate the opportunity cost of producing one tonne of bananas in Country A. [1]

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(Question 3 continued)

(b) Using information provided in the diagram to support your answer, determine which country should specialise in the production of cotton. [2]

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(c) Distinguish between the terms absolute advantage and comparative advantage. [2]

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(d) Explain **two** reasons why specialisation in a narrow range of primary products according to the theory of comparative advantage might not benefit an economically less developed country. [4]

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(Question 3 continued)

Table 5 provides information relating to the Balance of Payments for Urbania for 2017.

Table 5

Item	$ million
Exports of goods	1527
Imports of goods	1393
Exports of services	**V**
Imports of services	954
Net income	–35
Net current transfers	–49
Net capital transfers	11
Net transactions in non-produced, non-financial assets	6
Net direct investment	–196
Net portfolio investment	285
Reserve assets	**W**

Urbania has a current account deficit of $125 million in 2017.

(e) Calculate the value of **V** (exports of services) for Urbania in 2017. [2]

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(f) Distinguish between direct investment and portfolio investment. [2]

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(Question 3 continued)

(g) (i) Using the information in **Table 5**, calculate the financial account balance. [2]

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(ii) Using your answer to part (g)(i), calculate the value of **W** (reserve assets) in **Table 5**. [1]

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(h) Using your answer to part (g)(ii), describe how the level of reserve assets in Urbania changed by the end of 2017. [1]

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The government of Urbania is concerned that the rate of inflation is significantly higher than in its close trading partners.

(i) Outline how Urbania's relatively high rate of inflation might affect its current account balance. [2]

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(Question 3 continued)

(j) Outline **one** method, other than attempting to reduce the value of its currency, which may be used by the government of Urbania to reduce its current account deficit. [2]

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(k) Explain how a depreciation of the Urbanian dollar ($) might result in a J-curve effect. [4]

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