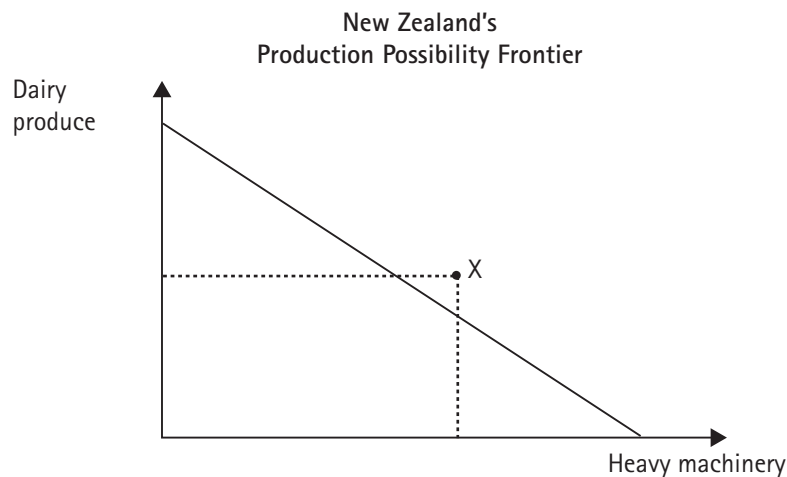




eLearneconomics: Comparative advantage (1)

Student response _____

- (a) Assume New Zealand specialises in dairy production. Dairy produce is exported and heavy machinery is imported. On the straight-line Production Possibility Frontier below, (i) identify the quantity of dairy produce that would need to be exported, and (ii) the quantity of heavy machinery that would need to be imported, so New Zealanders could consume the combination of dairy produce and heavy machinery shown by point X.



- (b) Explain the basis on which trade has taken place in the diagram above.

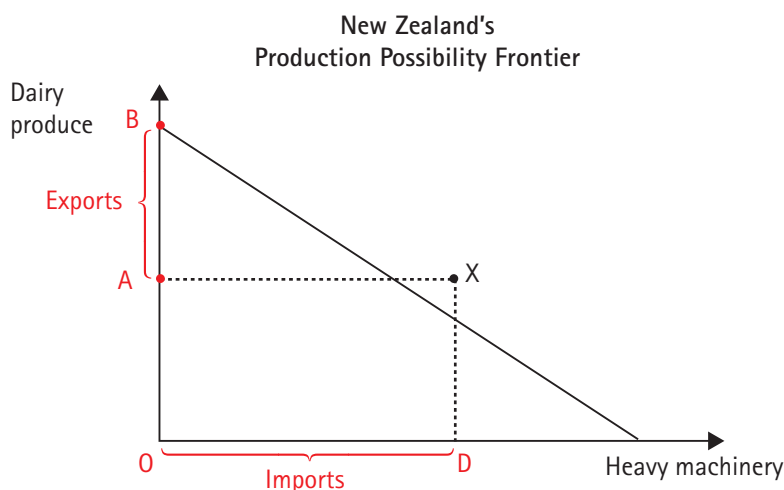
- (c) Identify one assumption you made in your explanation to question (b) and the weakness of this assumption in your analysis.

- (d) Discuss the statement 'the basic reasons for trade are equally applicable within a country (regional trade) or among countries (international trade)'.



Solutions

- (a) Assume New Zealand specialises in dairy production. Dairy produce is exported and heavy machinery is imported. On the straight-line Production Possibility Frontier below, (i) identify the quantity of dairy produce that would need to be exported, and (ii) the quantity of heavy machinery that would need to be imported, so New Zealanders could consume the combination of dairy produce and heavy machinery shown by point X.



- (b) Explain the basis on which trade has taken place in the diagram above.

New Zealand would concentrate on dairy output and produce OB. New Zealand would retain OA dairy produce for its own use and export quantity AB. New Zealand imports quantity OD, this allows it to consume quantity X which is outside its existing production possibility curve.

- (c) Identify one assumption you made in your explanation to question (b) and the weakness of this assumption in your analysis.

The assumption is that an economy specialises in the production of one good and that resources are fully utilised. The weakness is that it is unlikely that an economy would concentrate on the production of one good and that resources are fully utilised.

- (d) Discuss the statement 'the basic reasons for trade are equally applicable within a country (regional trade) or among countries (international trade)'.

Idea that resources are unevenly distributed, that regions and countries should concentrate on activities that best suit these factor endowments, i.e., specialise, increase output and make the most efficient use of scarce resources. By trading surplus production, living standards can improve and there are mutual gains for both parties, whether they are a region or country. It also allows a region or country to get certain commodities they can not produce themselves.



eLearneconomics: Comparative advantage (2)

Student response _____

Using similar quantities of resources Country X and Country Y can produce either kiwifruit or avocados in the following quantities.

	Kiwifruit	Avocados
Country X	25	20
Country Y	10	15

(a) Calculate the opportunity cost of producing each good in terms of the other by completing the statements below (the first one is done for you).

(i) In Country X the opportunity cost of producing 1 unit of kiwifruit is $\frac{20}{25} = 0.8$ units of avocados

(ii) In Country Y the opportunity cost of producing 1 unit of kiwifruit is _____

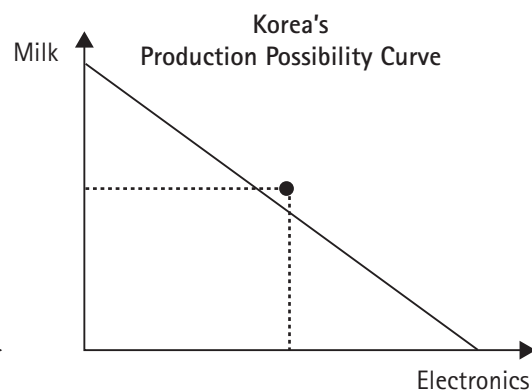
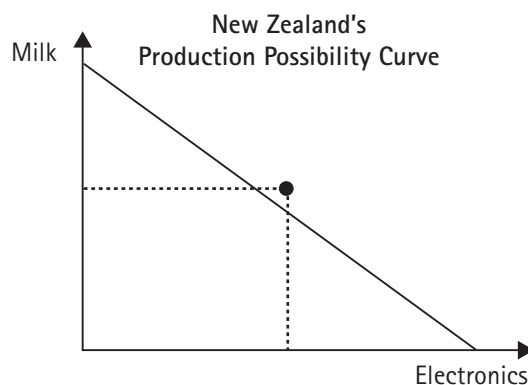
(iii) In Country X the opportunity cost of producing 1 unit of avocado is _____

(iv) In Country Y the opportunity cost of producing 1 unit of avocado is _____

(b) Which commodity should country Y specialise in the production of and why?

(c) State two assumptions on which the theory of comparative advantage is based.

(d) New Zealand specialises in the production of milk, some of which is exported to Korea. Korea specialises in the production of electronics, some of which are imported by New Zealand. Identify the exports and imports for each country. Label the exports as X and the imports as M.



eLearneconomics: Comparative advantage (2a)



Solutions

Using similar quantities of resources Country X and Country Y can produce either kiwifruit or avocados in the following quantities.

	Kiwifruit	Avocados
Country X	25	20
Country Y	10	15

(a) Calculate the opportunity cost of producing each good in terms of the other by completing the statements below (the first one is done for you).

(i) In Country X the opportunity cost of producing 1 unit of kiwifruit is $\frac{20}{25} = 0.8$ units of avocados

(ii) In Country Y the opportunity cost of producing 1 unit of kiwifruit is $\frac{15}{10} = 1.5$ units of avocados

(iii) In Country X the opportunity cost of producing 1 unit of avocado is $\frac{25}{20} = 1.25$ units of kiwifruit

(iv) In Country Y the opportunity cost of producing 1 unit of avocado is $\frac{10}{15} = 0.66$ units of kiwifruit

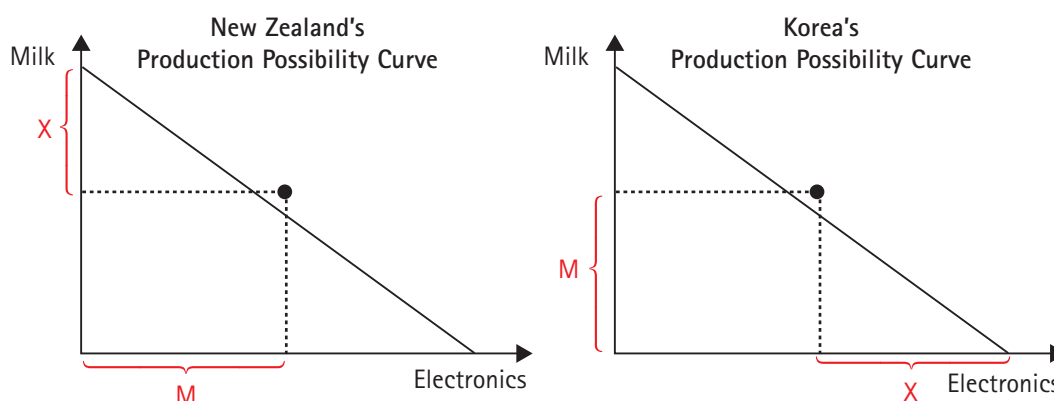
(b) Which commodity should country Y specialise in the production of and why?

Country Y should produce avocados because the opportunity cost in terms of kiwifruit is least, or because Country Y has to forego less in terms of kiwifruit to produce avocados. Country Y has a comparative advantage in producing avocados, i.e., it costs Country Y 0.66 kiwifruit units whereas it costs Country X 1.25 kiwifruit units.

(c) State two assumptions on which the theory of comparative advantage is based.

Two goods, two countries, free trade, no transport costs, constant costs.

(d) New Zealand specialises in the production of milk, some of which is exported to Korea. Korea specialises in the production of electronics, some of which are imported by New Zealand. Identify the exports and imports for each country. Label the exports as X and the imports as M.

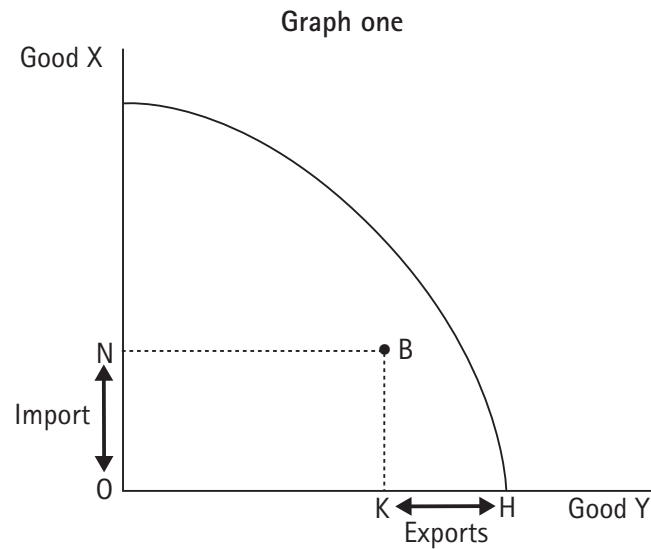




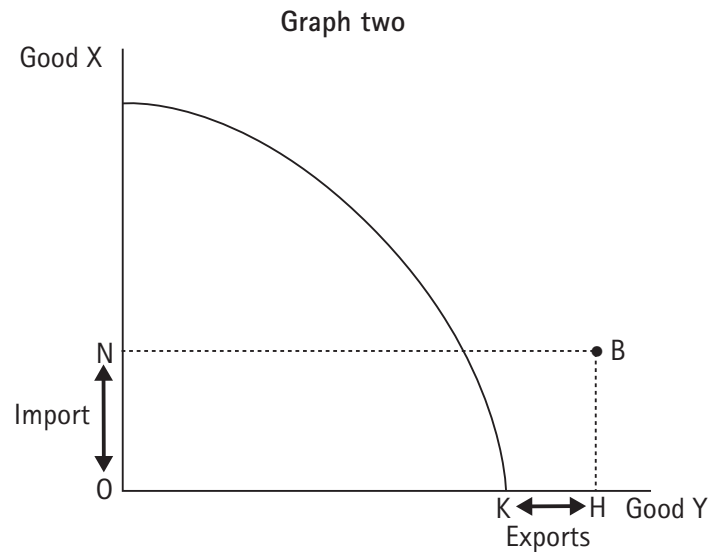
eLearneconomics: Comparative advantage (3)

Student response

- (a) Study the production possibility curves below and comment on what they show in relation to a desirable, and possible, after-trade position.

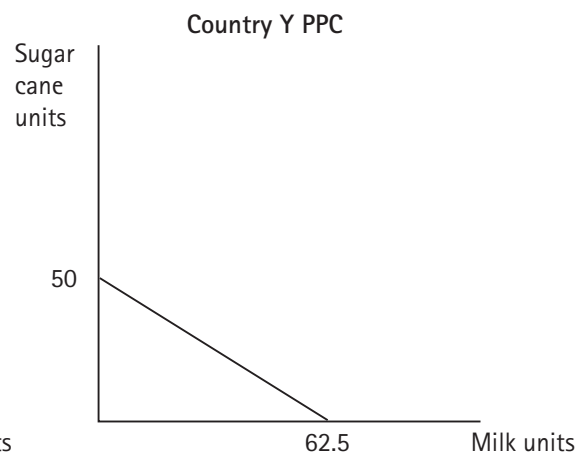
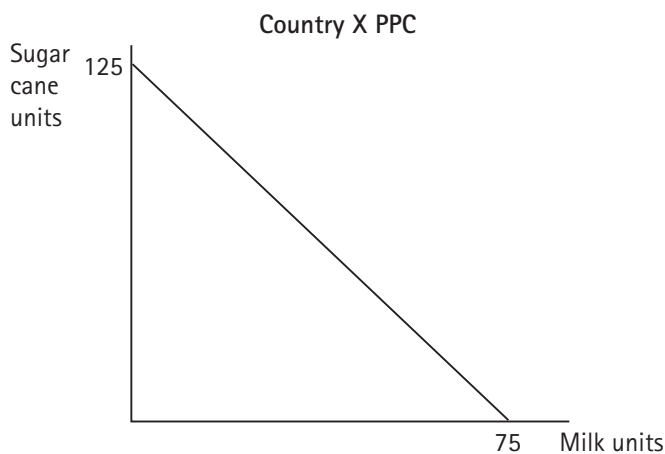


Comment: _____



Comment: _____

- (b) Country X and Country Y have similar resources and produce either sugar cane or milk..



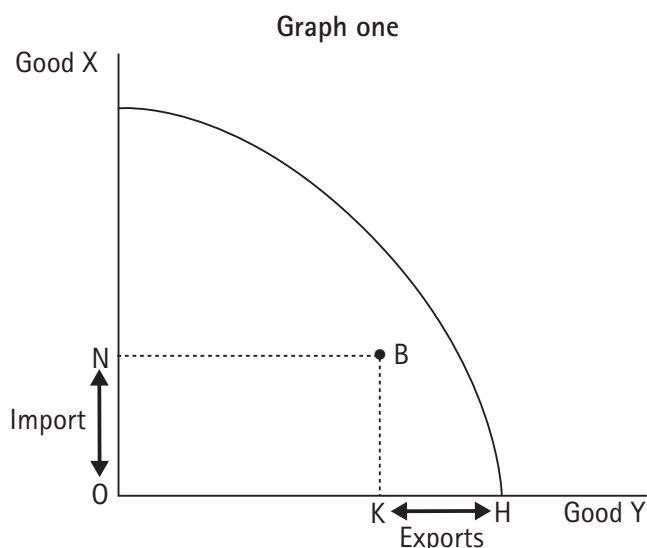
- (i) The opportunity cost of producing one unit of sugar cane in Country X is _____
- (ii) The opportunity cost of producing one unit of sugar cane in Country Y is _____
- (iii) Explain which country should specialise in the production of sugar cane.

eLearneconomics: Comparative advantage (3a)

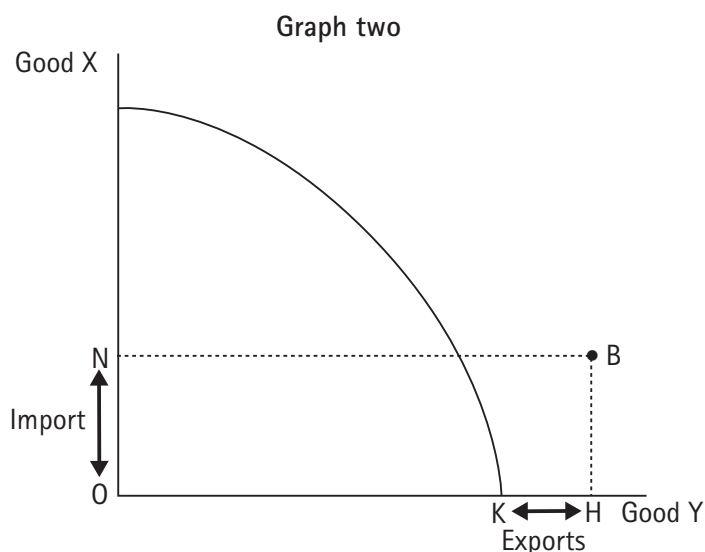


Solutions

- (a) Study the production possibility curves below and comment on what they show in relation to a desirable, and possible, after-trade position.

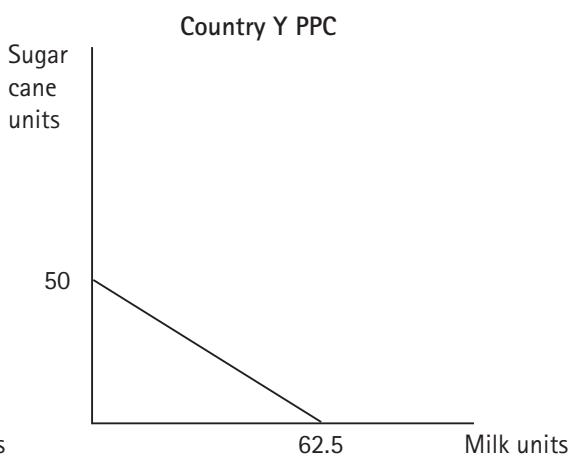
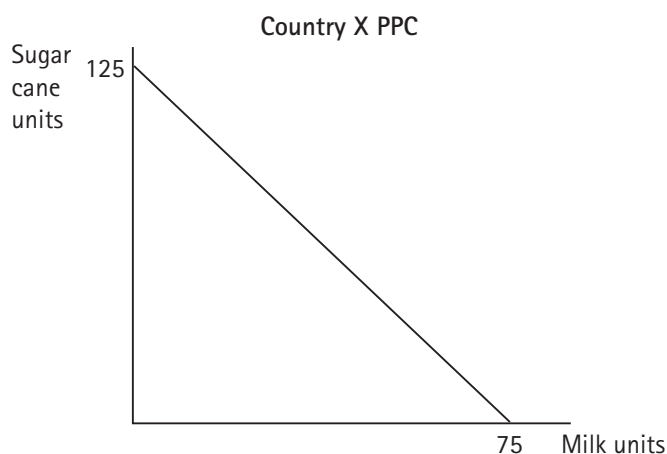


Comment: This final position is within domestic production possibilities and therefore not the most desirable outcome from trade.



Comment: This position is impossible because it indicates that the economy is producing beyond its current domestic production possibilities and exporting some of this impossible production.

- (b) Country X and Country Y have similar resources and produce either sugar cane or milk..



- (i) The opportunity cost of producing one unit of sugar cane in Country X is 0.6 units of milk
- (ii) The opportunity cost of producing one unit of sugar cane in Country Y is 1.25 units of milk
- (iii) Explain which country should specialise in the production of sugar cane.

Country X should specialise in the production of sugar cane because it has a comparative advantage in the production of sugar cane because the opportunity cost foregone in terms of milk is lower. It costs Country X 0.6 units of milk whereas it costs Country Y 1.25 units of milk.

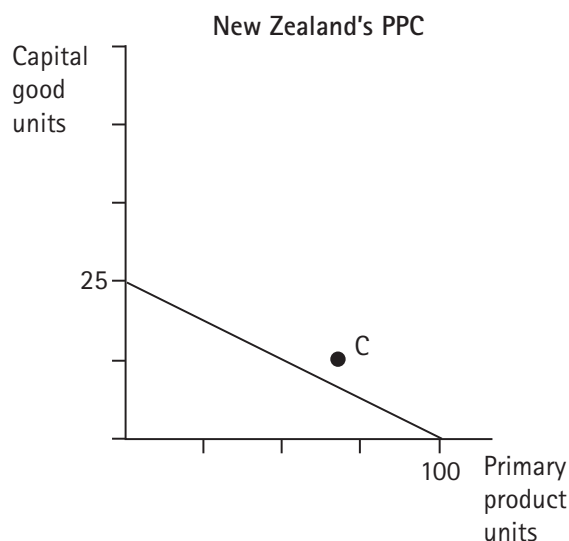


Student response

Explain the statement above.

In your answer you should refer to the graphs and:

-
- Japan's PPC
- Capital good units
- 150
- 75
- Primary product units
- C

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eLearneconomics: Comparative advantage (4a)



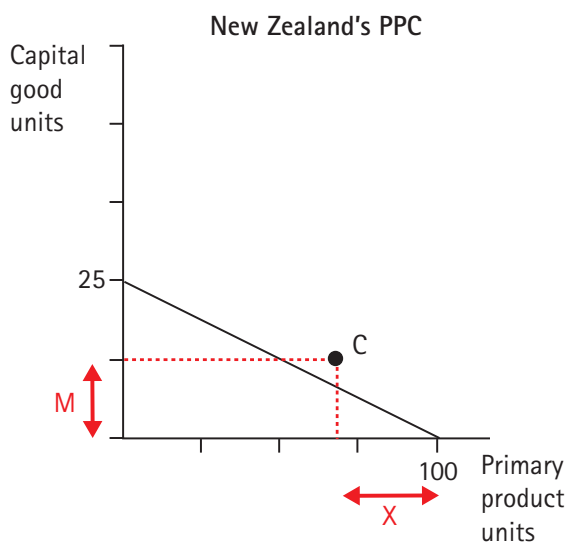
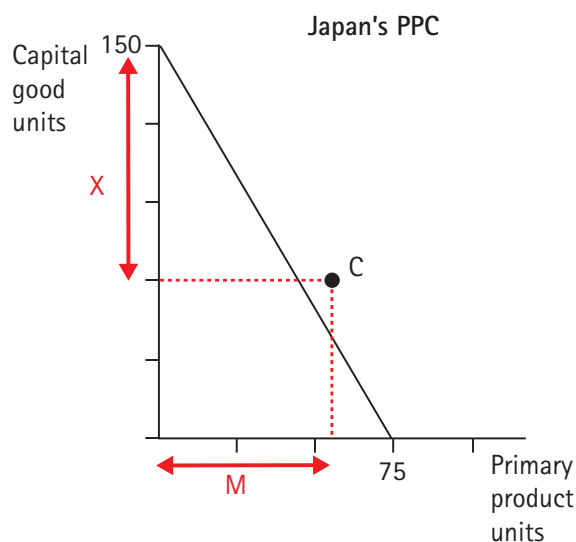
Solutions

Comparative advantage is at the heart of international trade.

Explain the statement above.

In your answer you should refer to the graphs and:

- Illustrate on both graphs the level of exports (X) and imports (M) so that both countries consume at point C.
- Explain why each country should specialise in the product you have illustrated. Refer to the concepts of comparative advantage and opportunity costs.
- Explain the benefits for both countries specialising and trading.



New Zealand should specialise in primary products because it has a comparative advantage in production of primary products. The opportunity cost of producing additional primary product is lower than for Japan. In NZ the opportunity cost of one primary product unit is 0.25 capital good units compared with Japan's 2 capital good units given up.

Japan should specialise in capital goods. It has a comparative advantage in capital goods because the opportunity cost of producing one more capital good is lower than for New Zealand. In Japan the opportunity cost of one capital good unit is 0.5 primary product units compared with New Zealand's 4 primary product units.

As both countries specialise and trade they are able to consume at a point outside their respective PPCs that was not possible before trade.