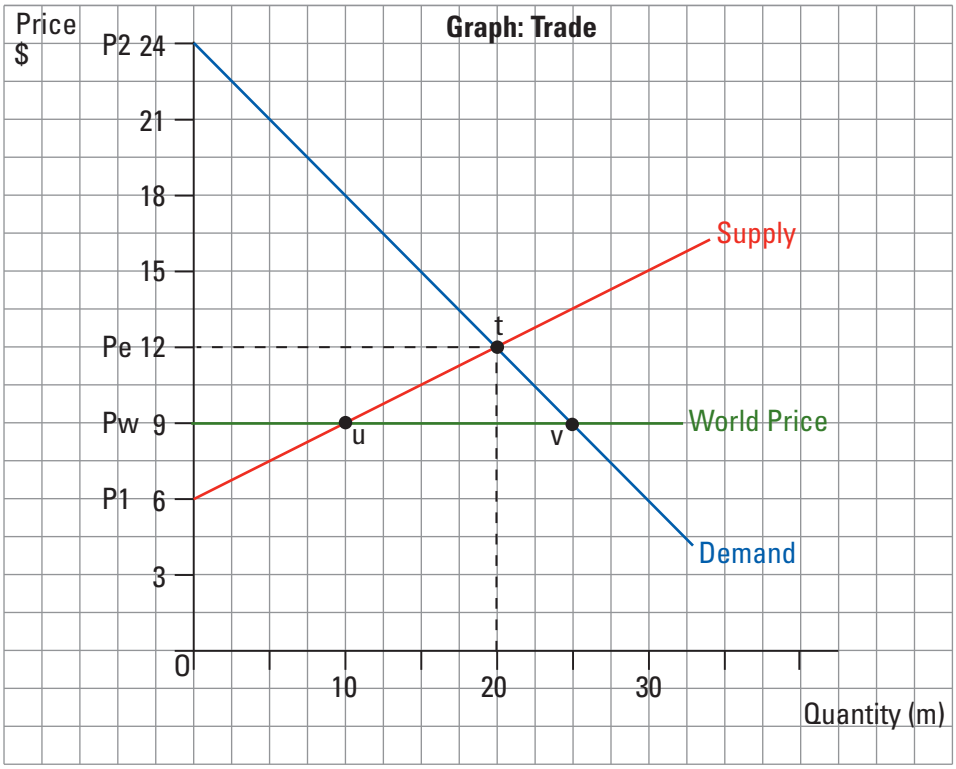
eLearneconomics: Consumer/Producer Surplus – Trade (1)

Student response

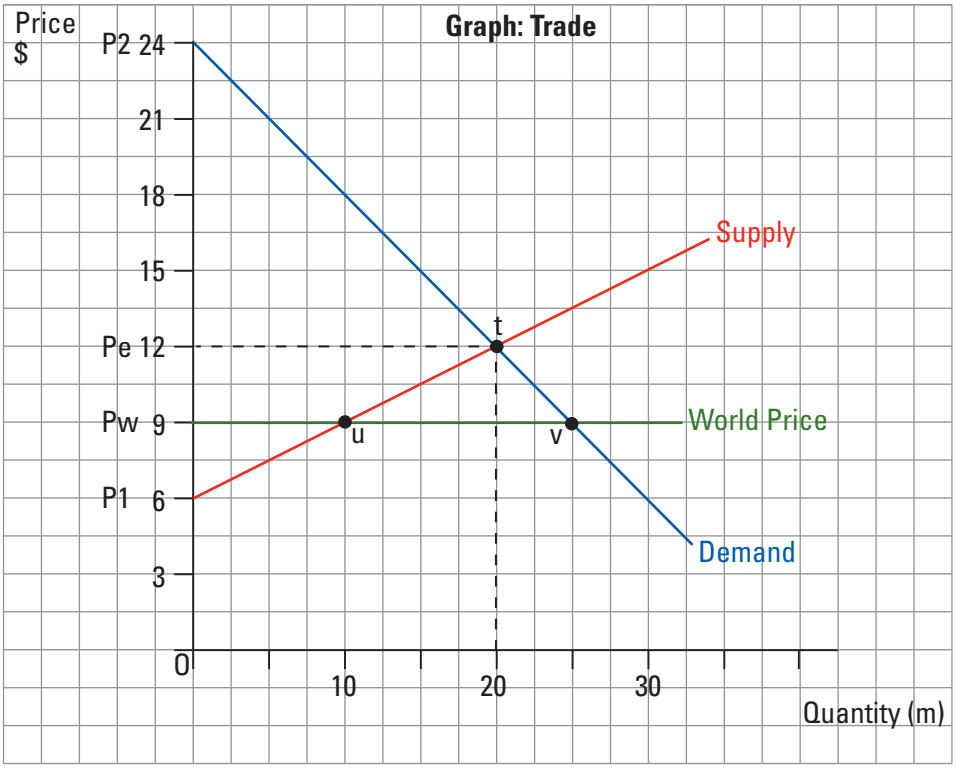
(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of trade taking place.



eLearneconomics: Consumer/Producer Surplus – Trade (1a)

Solutions

(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of trade taking place.



When the world price ($9) is below the original domestic price ($12) then consumer surplus will increase from $120m to $187.5m because consumers will pay a lower price ($9 instead of $12) and consume more (25m instead of 20m). There is a gain of consumer surplus of $67.5m with trade. Because the world price is below the original domestic price domestic producers will have to lower prices to compete with cheaper imported goods or services and they will sell less (10m instead of 20m). Producer surplus will decrease from $60m to $15m, this is a loss of producer surplus of $45m. The market is able to reach the equilibrium with free trade, consumer surplus and producer surplus are maximised. International free trade is allocatively efficient than not trading, because the area of total surpluses increases. The increase in consumer surplus of $67.5m more than offsets the loss in producer surplus of $45m. Resources are allocated efficiently and therefore there is no deadweight loss.

eLearneconomics: Consumer/Producer Surplus – Trade (2)

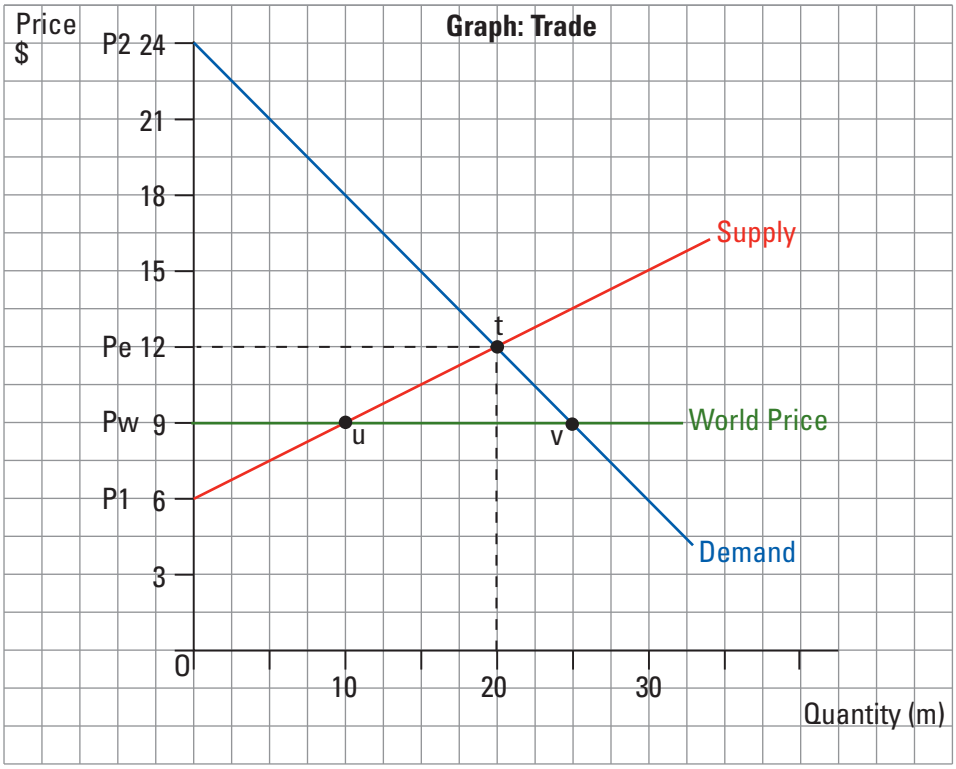
Student response

(a) Show the effects of trade taking place on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



(b) Complete the table.

	Labels from the graph
Original consumer surplus	
New consumer surplus	
Original producer surplus	
New producer surplus	
Deadweight loss	

eLearneconomics: Consumer/Producer Surplus – Trade (2a)

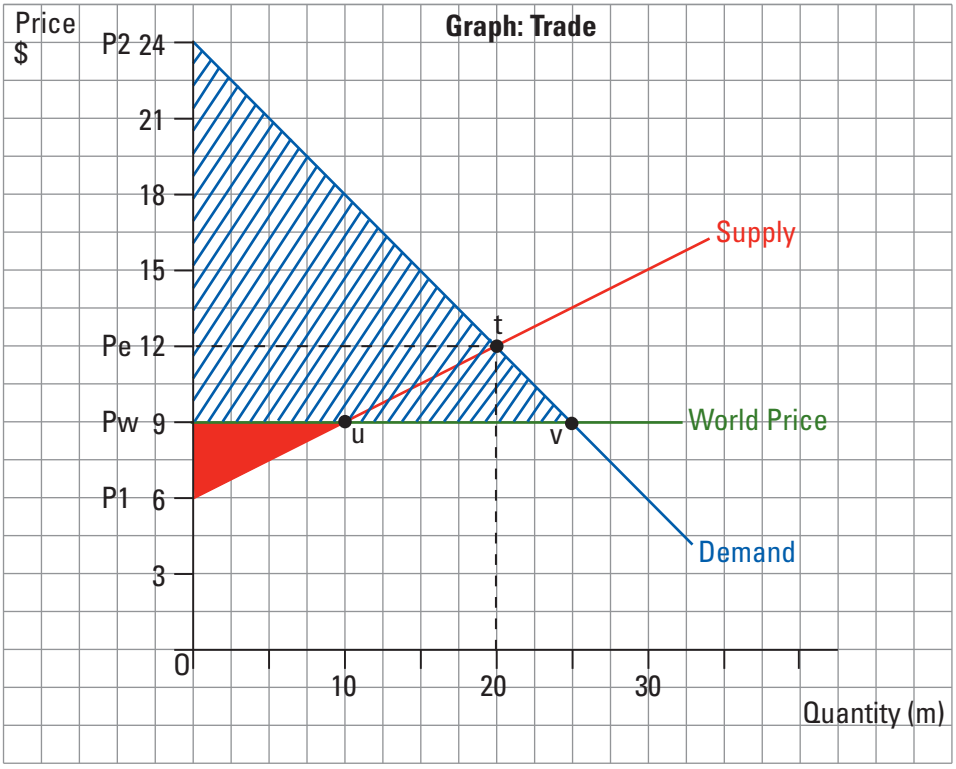
Solutions

(a) Show the effects of trade taking place on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



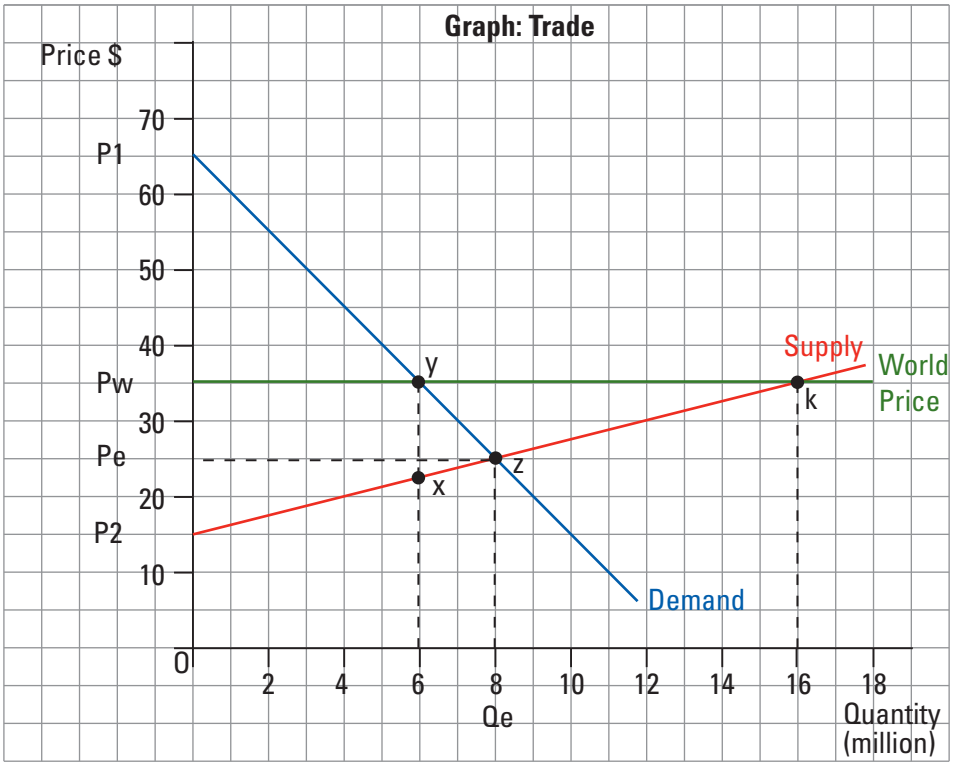
(b) Complete the table.

	Labels from the graph
Original consumer surplus	Pe t P2
New consumer surplus	Pw v P2
Original producer surplus	Pe t P1
New producer surplus	Pw u P1
Deadweight loss	none

eLearneconomics: Consumer/Producer Surplus – Trade (3)

Student response

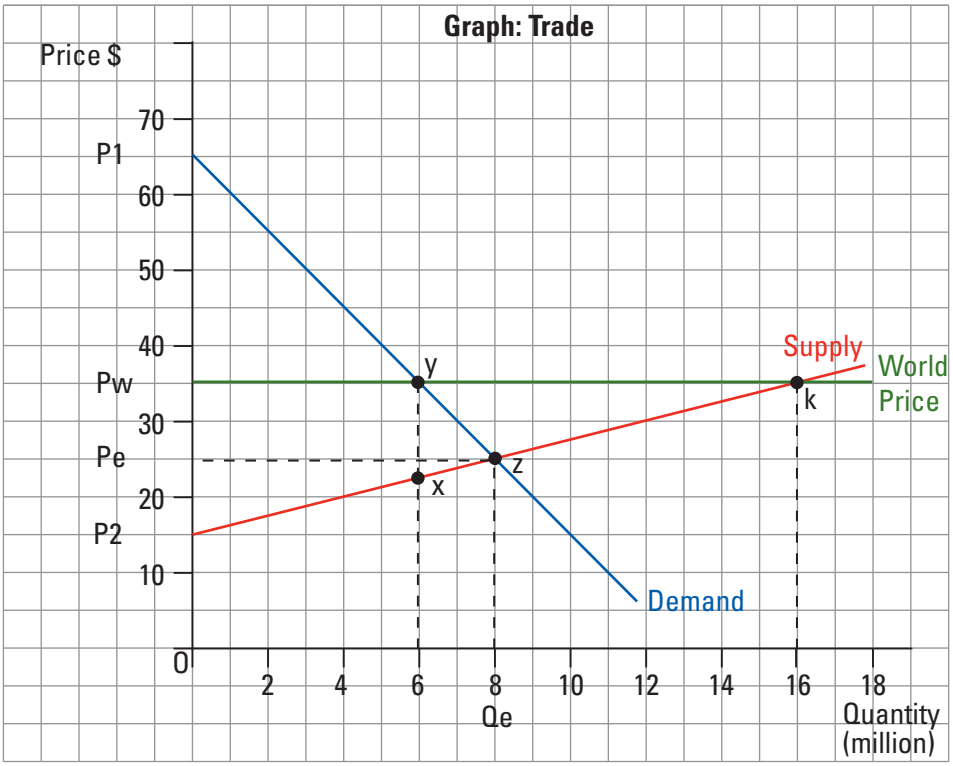
(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of trade taking place.



eLearneconomics: Consumer/Producer Surplus – Trade (3a)

Solutions

(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of trade taking place.



When the world price ($35) is above the original domestic price ($25) then consumer surplus will decrease from $160m to $90m because consumers will pay a higher price ($35 instead of $25) and consume less (6m instead of 8m). There is a loss of consumer surplus of $70m with trade. Because the world price is above the original domestic price, domestic producers will export the product, selling more at a higher price. Producer surplus will increase from $40m to $160m, this is a gain of producer surplus of $120m. The market is able to reach the equilibrium with free trade, consumer surplus and producer surplus are maximised. International free trade is allocatively efficient as opposed to not trading, because the area of total surpluses increases. The increase in producer surplus of $120m more than offsets the loss in consumer surplus of $70m. Resources are allocated efficiently and therefore there is no deadweight loss.

eLearneconomics: Consumer/Producer Surplus – Trade (4)

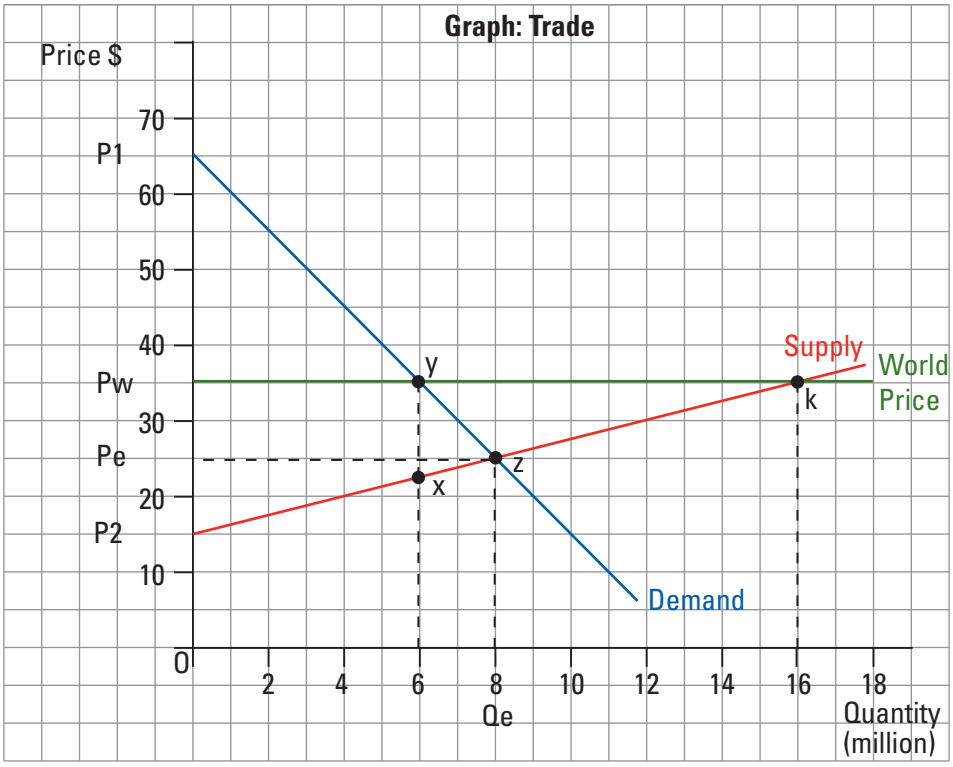
Student response

(a) Show the effects of trade taking place on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



(b) Complete the table.

	Labels from the graph
Original consumer surplus	
New consumer surplus	
Original producer surplus	
New producer surplus	
Deadweight loss	

eLearneconomics: Consumer/Producer Surplus – Trade (4a)

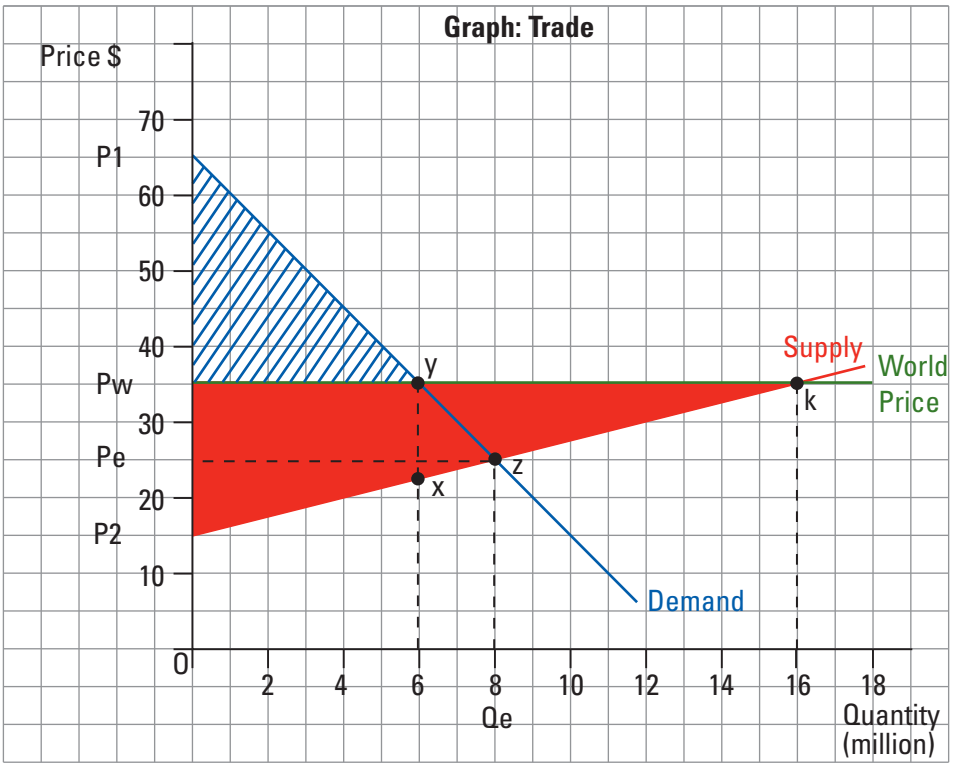
Solutions

(a) Show the effects of trade taking place on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



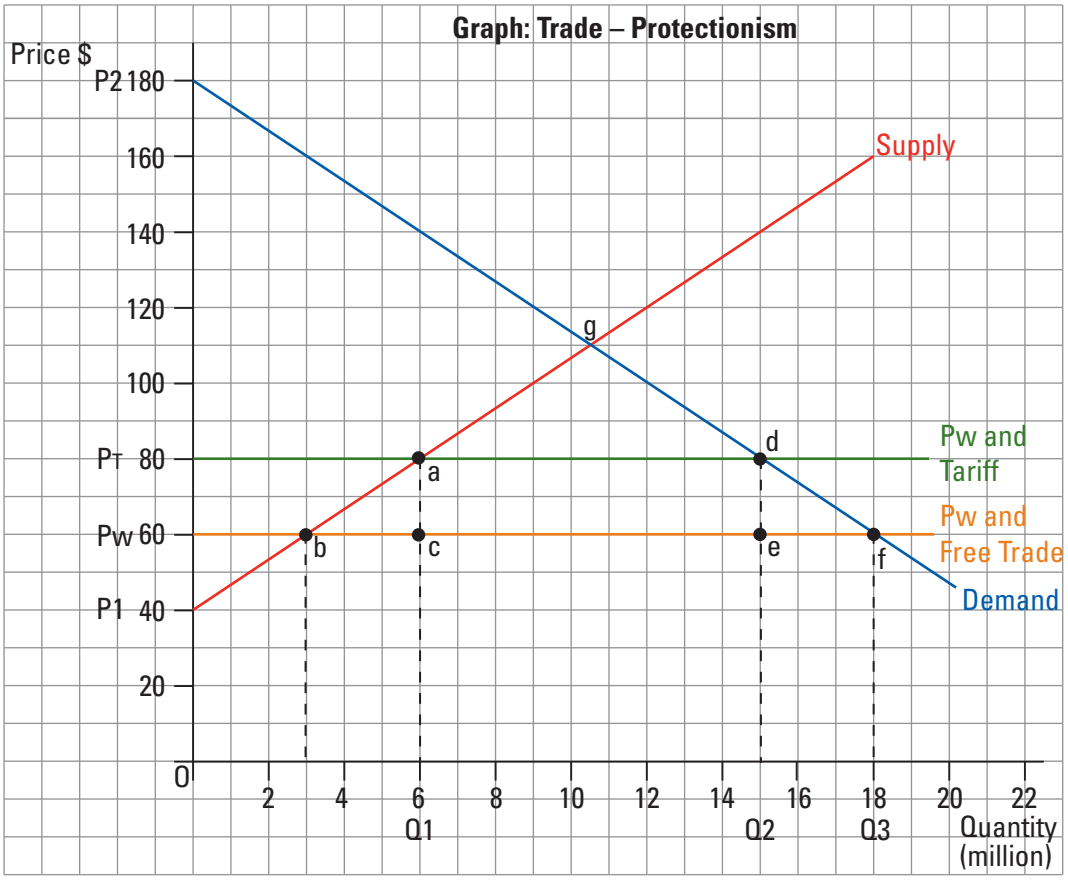
(b) Complete the table.

	Labels from the graph
Original consumer surplus	Pe z P1
New consumer surplus	Pw y P1
Original producer surplus	Pe z P2
New producer surplus	Pw k P2
Deadweight loss	none

eLearneconomics: Consumer/Producer Surplus – Trade (5)

Student response

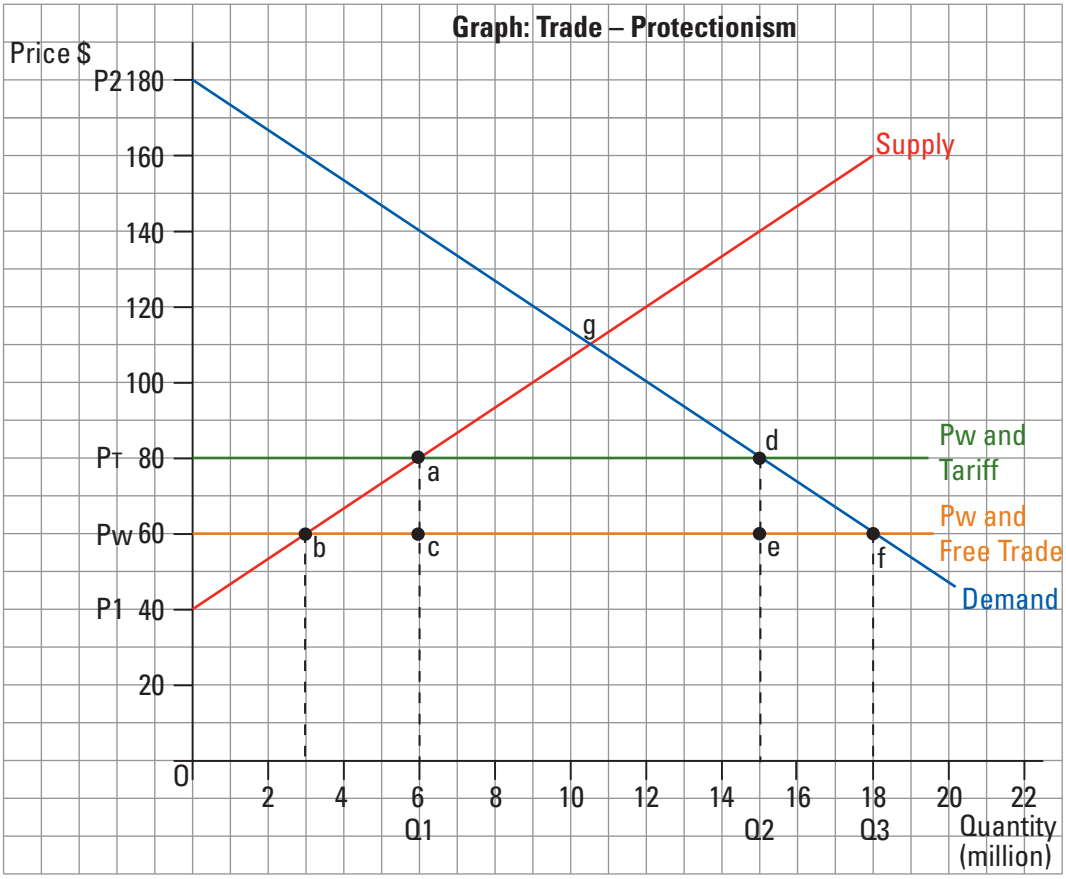
(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of the government imposing a tariff.



eLearneconomics: Consumer/Producer Surplus – Trade (5a)

Solutions

(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of the government imposing a tariff.



At the world price ($60), consumer surplus is $1080m and producer surplus is $30m, the market is allocatively efficient.

When a tariff (a tax on imports) is levied on imported goods or services it will raise the price thereby making locally-made products relatively more competitive. The tariff lifts the price to $80 and local firms' output increases from 3 million to 6 million. Producer surplus for domestic producers will now be $120m, which is a gain of $90m. Consumer surplus with the tariff is $750m because consumers now pay a higher price ($80 instead of $60) and consume less (15m instead of 18m). There is a loss of consumer surplus of $330m as a result of the tariff.

The government raises tax revenue of $180m because this equals the tariff per unit ($20) multiplied by imports (9 million). When the government imposes a tariff, part of the consumer surplus and producer surplus from free trade is lost. This loss of allocative efficiency (DWL) in this instance is $60m.

eLearneconomics: Consumer/Producer Surplus – Trade (6)

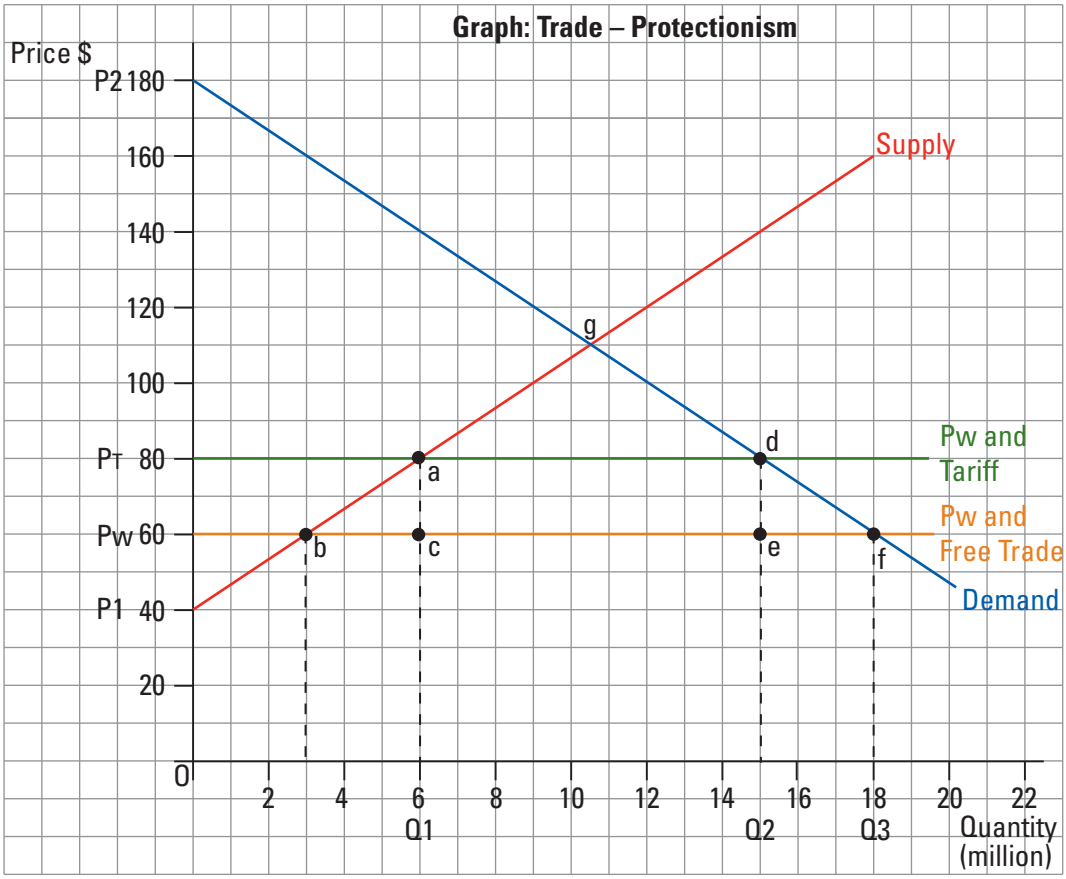
Student response

(a) Show the effects of the government imposing a tariff on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



(b) Complete the table.

	Labels from the graph
Original consumer surplus	
New consumer surplus	
Original producer surplus	
New producer surplus	
Deadweight loss	

eLearneconomics: Consumer/Producer Surplus – Trade (6a)

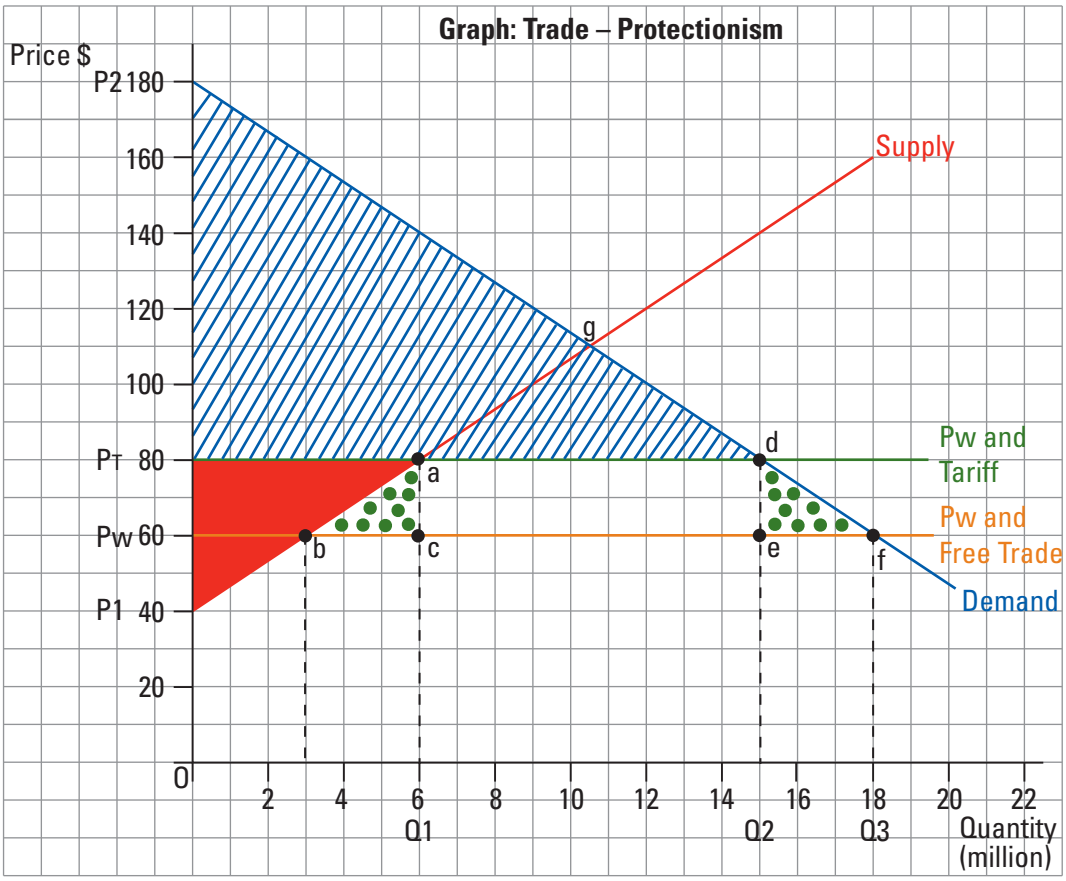
Solutions

(a) Show the effects of the government imposing a tariff on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



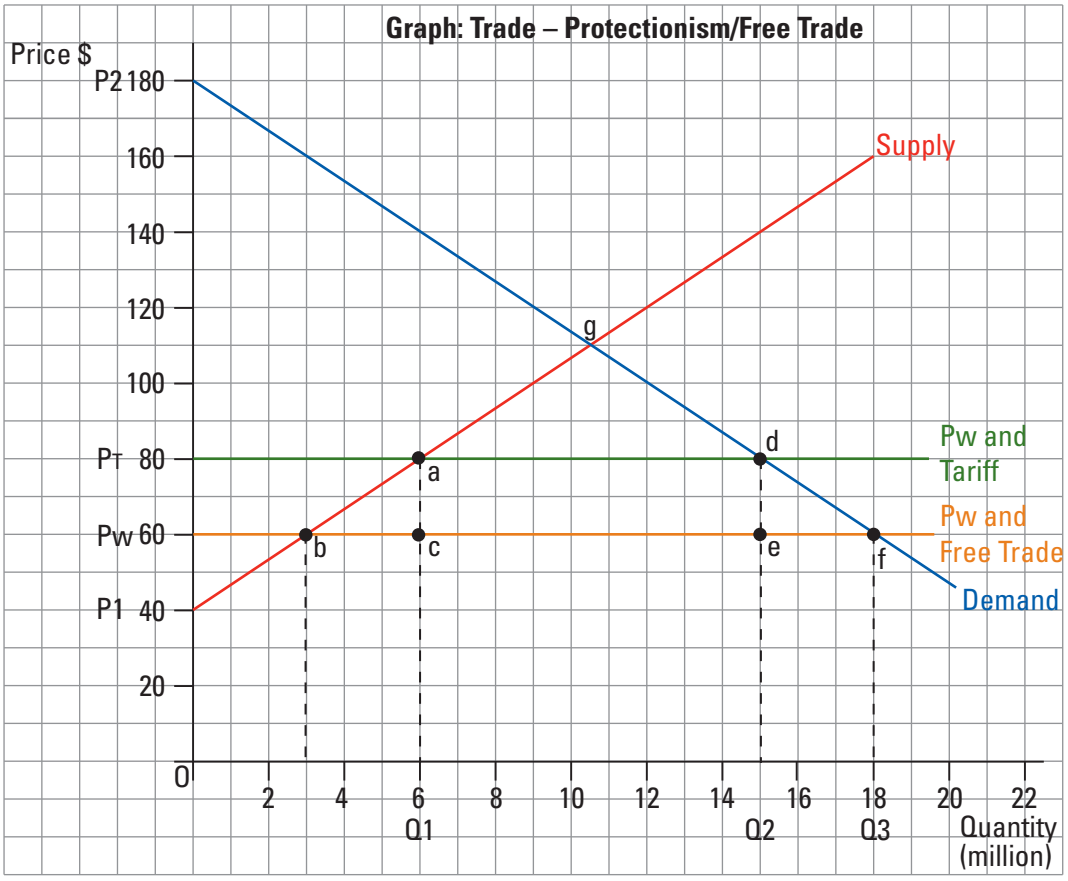
(b) Complete the table.

	Labels from the graph
Original consumer surplus	Pw f P2
New consumer surplus	PT d P2
Original producer surplus	Pw b P1
New producer surplus	PT a P1
Deadweight loss	abc and def

eLearneconomics: Consumer/Producer Surplus – Trade (7)

Student response

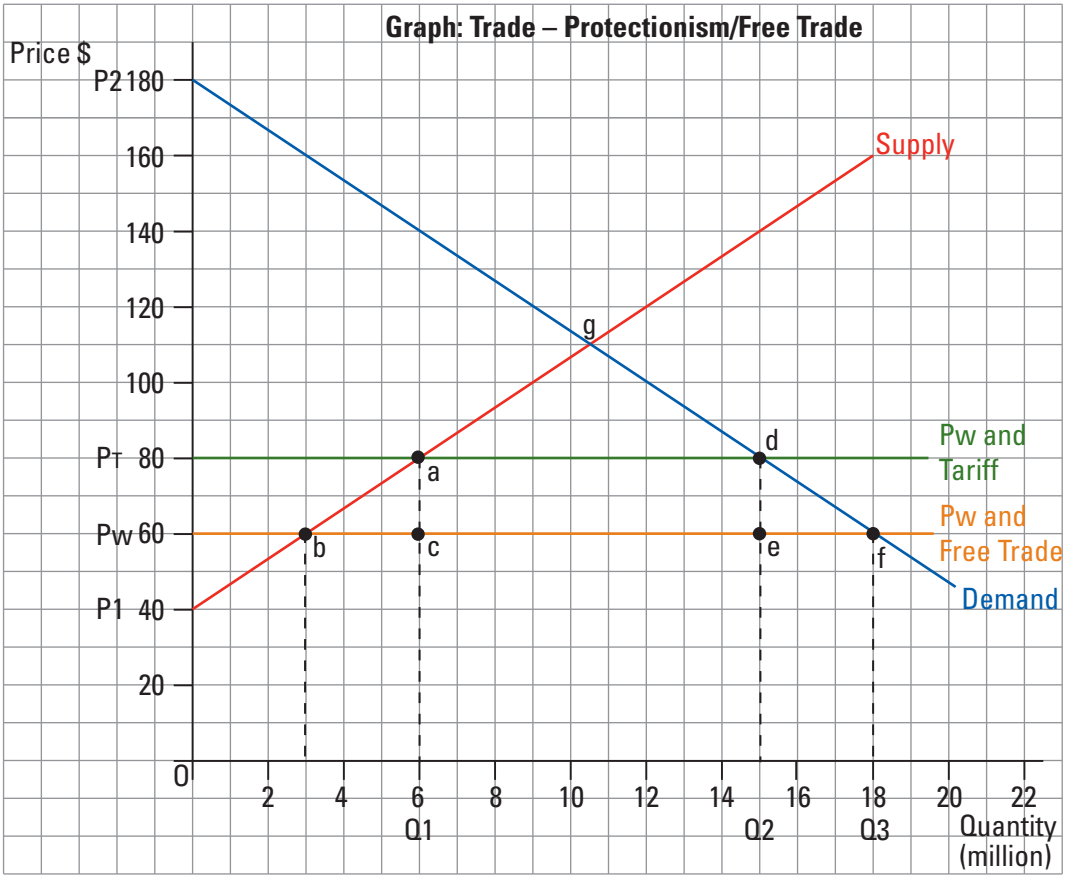
(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of the government removing a tariff.



eLearneconomics: Consumer/Producer Surplus – Trade (7a)

Solutions

(a) Explain, using figures, the changes to consumer surplus, producer surplus and allocative efficiency as the result of the government imposing a tariff.



With the tariff (a tax on imports) in place, the consumer surplus is $750m. When this tariff is lifted consumer surplus increases by $330m to $1080m because consumers now pay a lower price ($60 instead of $80) and consume more (18m instead of 15m). As the tariff lifts local firms' output decreases from 6 million to 3 million. Producer surplus for domestic producers will now be $30m instead of $120m, which is a loss of $90m.

When the government imposes a tariff, part of the consumer surplus and producer surplus from trade is lost. The loss of allocative efficiency (DWL) in this instance was $60m, which is now picked up as part of the new consumer and producer surplus. Therefore, free trade is allocatively efficient because consumer surplus and producer surplus is maximised.

eLearneconomics: Consumer/Producer Surplus – Trade (7)

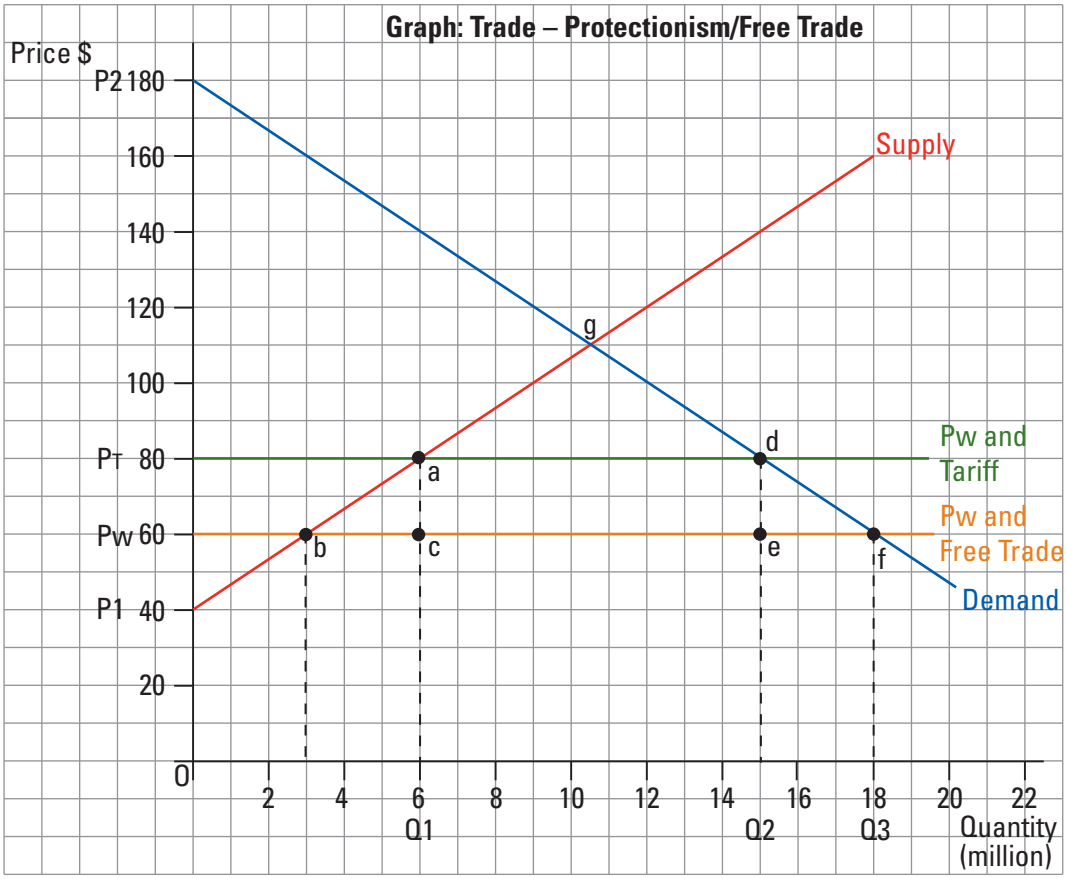
Student response

(a) Show the effects of the government removing a tariff on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



(b) Complete the table.

	Labels from the graph
Original consumer surplus	
New consumer surplus	
Original producer surplus	
New producer surplus	
Deadweight loss	

eLearneconomics: Consumer/Producer Surplus – Trade (8a)

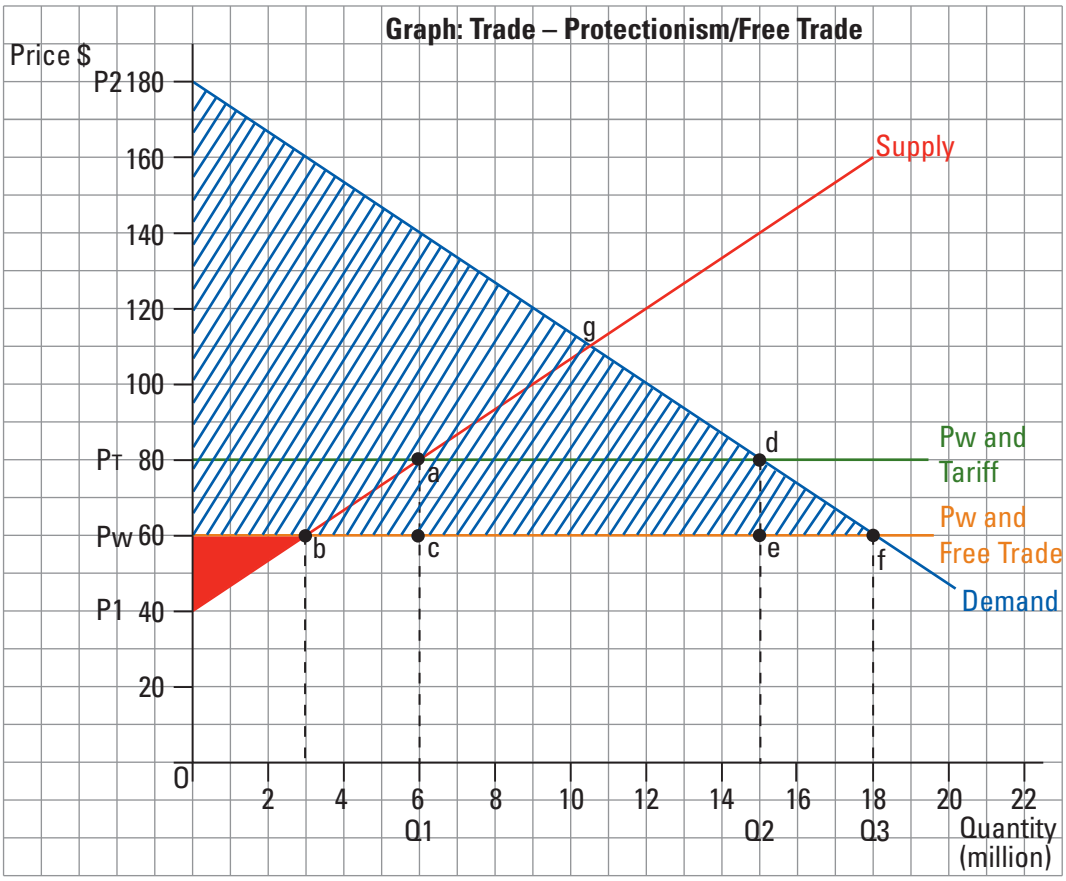
Solutions

(a) Show the effects of the government removing a tariff on the market by:

(i) shading the consumer surplus

(ii) shading the producer surplus

(iii) shading any loss of allocative efficiency



(b) Complete the table.

	Labels from the graph
Original consumer surplus	P2 d PT
New consumer surplus	P2 f Pw
Original producer surplus	PT a P1
New producer surplus	Pw b P1
Deadweight loss	none – zero