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NZQA

NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
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Level 3 Economics, 2019

91399 Demonstrate understanding of the efficiency of market equilibrium

2.00 p.m. Monday 18 November 2019
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the efficiency of market equilibrium.	Demonstrate in-depth understanding of the efficiency of market equilibrium.	Demonstrate comprehensive understanding of the efficiency of market equilibrium.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–11 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

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QUESTION ONE: IMPACT OF A SUBSIDY AND MAXIMUM PRICE CONTROL

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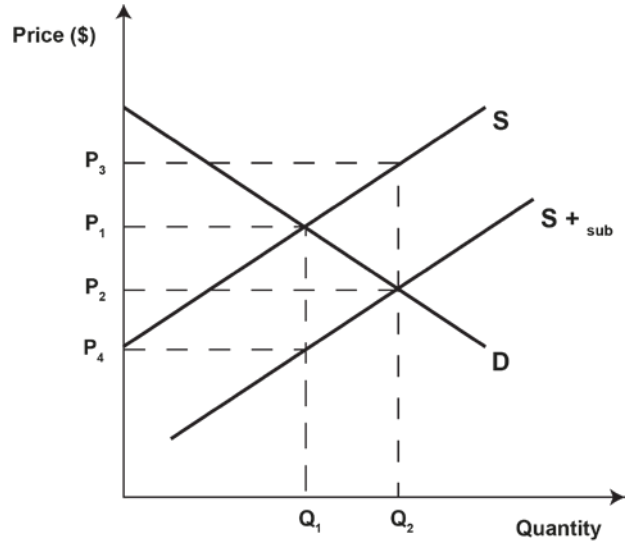
Two policy options for the government, if it wishes to make a beneficial good or service more affordable for consumers and therefore increase consumption, are a subsidy and a maximum price control.

Graph One: A market for a beneficial good with a subsidy



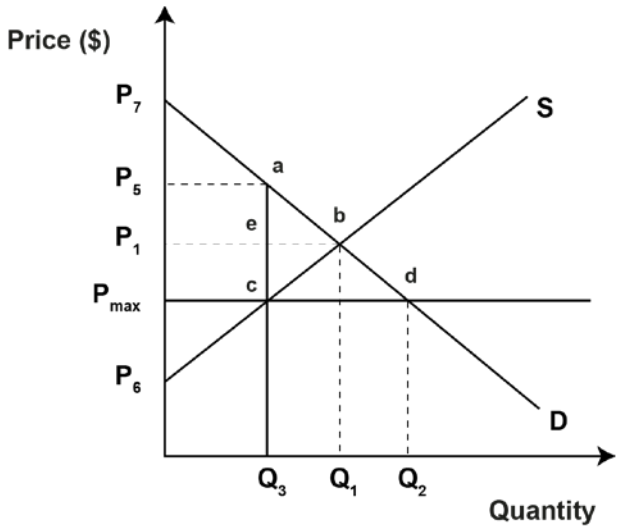
(a) On Graph One, above, complete the following:

Shade in the change in consumer surplus. Shade in the deadweight loss.

Shade in the change in producer surplus.

Label the total cost of the subsidy to the government using the letters A, B, C and D.

Graph Two: A market for a beneficial good with a maximum price control



(b) Use the labels from Graph Two, above, to identify:

(i) the consumer surplus after the maximum price _____

(ii) the change in producer surplus _____

(iii) the deadweight loss _____

(c) Compare and contrast the impact of a subsidy and a maximum price control on the market for a beneficial good. In your answer, refer to both graphs and explain in detail:

- the impact of both policies on producer surplus
- the impact of both policies on allocative efficiency
- which of the two policies will be more beneficial to consumers.

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QUESTION TWO: NEW ZEALAND PETROL MARKET

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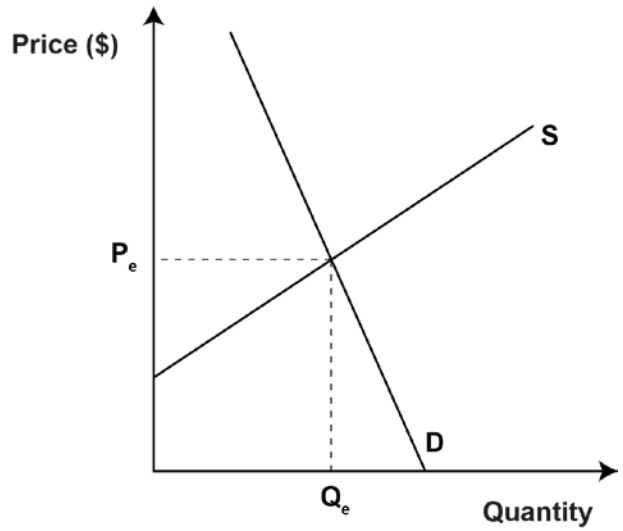
Petrol prices in many parts of New Zealand hit a record high as fuel companies reacted to higher crude oil prices, and passed on the cost increases to consumers.

BP said the latest increase was "predominantly due to an increase in the cost of product, coupled with the recent exchange rate weakening".

Source (adapted): https://www.stuff.co.nz/business/106609092/petrol-prices-hit-new-record-as-another-tax-increase-approaches.

Graph Three: The New Zealand market for petrol



(a) (i) Show, on Graph Three, above, the impact of an increase in the cost of crude oil prices and the weakening of the New Zealand dollar on the New Zealand market for petrol. Clearly label the changes to the equilibrium price and quantity.

(ii) Explain in detail, with reference to market forces, how the equilibrium in the New Zealand petrol market will be restored. Refer to the changes you made to Graph Three in your answer.

(iii) Compare and contrast the size of the change in the equilibrium price of petrol with the size of the change in the equilibrium quantity. In your answer, you should refer to the changes made to Graph Three, the resource material and the price elasticity of demand for petrol.

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Question 2 continues on page 6 ➤

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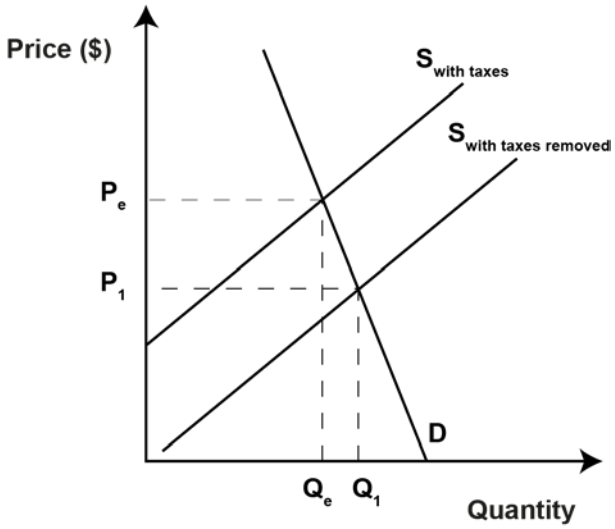
... 67.13 cents a litre is collected by the government in fixed excise taxes (excluding GST). In addition, a GST of 15% is collected on the overall price of fuel …

Source (adapted): https://z.co.nz/motorists/fuel-pricing/.

Reducing or removing the taxes on petrol would significantly lower its price and make it more affordable for consumers.

Graph Four: The New Zealand market for petrol with and without indirect taxes



(b) Compare and contrast the impact of removing petrol taxes on consumers, producers and allocative efficiency. In your answer:

- clearly shade and label the change in consumer surplus AND the change in producer surplus on Graph Four
- explain in detail, with reference to Graph Four, the impact of removing petrol taxes on consumer surplus and producer surplus
- explain in detail, referring to Graph Four, the impact of removing petrol taxes on allocative efficiency.

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QUESTION THREE: IMPACT OF QUOTA

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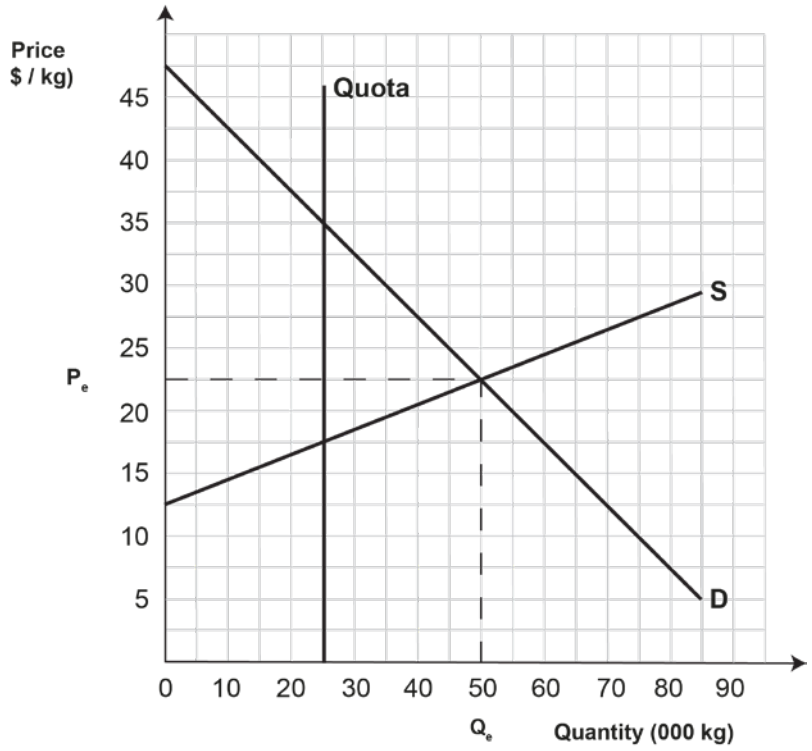
An important part of New Zealand fisheries management is the Quota Management System (QMS). Under the QMS, a yearly catch limit (i.e. the total allowable catch) is set for every fish stock (i.e. a species of fish, shellfish or seaweed from a particular area). By controlling the amount of fish taken from each stock, the QMS helps keep New Zealand's fisheries sustainable.

Source (adapted): https://www.mpi.govt.nz/law-and-policy/legal-overviews/fisheries/quota-management-system/.

Graph Five: The New Zealand market for a species of fish with a quota (yearly catch limit)



(a) Complete Table One below:

Table One:

	Space for working (if needed)	Value from Graph Five ($)
Change in consumer surplus after a quota of 25 000 kg is introduced.		
Change in producer surplus after a quota of 25 000 kg is introduced.		
Deadweight loss after a quota of 25 000 kg is introduced.		

(b) Compare and contrast the impacts of a quota on the New Zealand market for a species of fish. In your answer, refer to Graph Five and the calculations from Table One, and explain in detail the impact of a quota on:

- consumers of this species of fish
- producers of this species of fish
- allocative efficiency.

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Extra space if required.
Write the question number(s) if applicable.

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