

# 1

90986



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## Level 1 Economics, 2015

### 90986 Demonstrate understanding of how consumer, producer and/or government choices affect society, using market equilibrium

2.00 p.m. Wednesday 25 November 2015  
Credits: Five

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of how consumer, producer and/or government choices affect society, using market equilibrium.	Demonstrate in-depth understanding of how consumer, producer and/or government choices affect society, using market equilibrium.	Demonstrate comprehensive understanding of how consumer, producer and/or government choices affect society, using 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 2–12 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.**

**TOTAL**

ASSESSOR'S USE ONLY

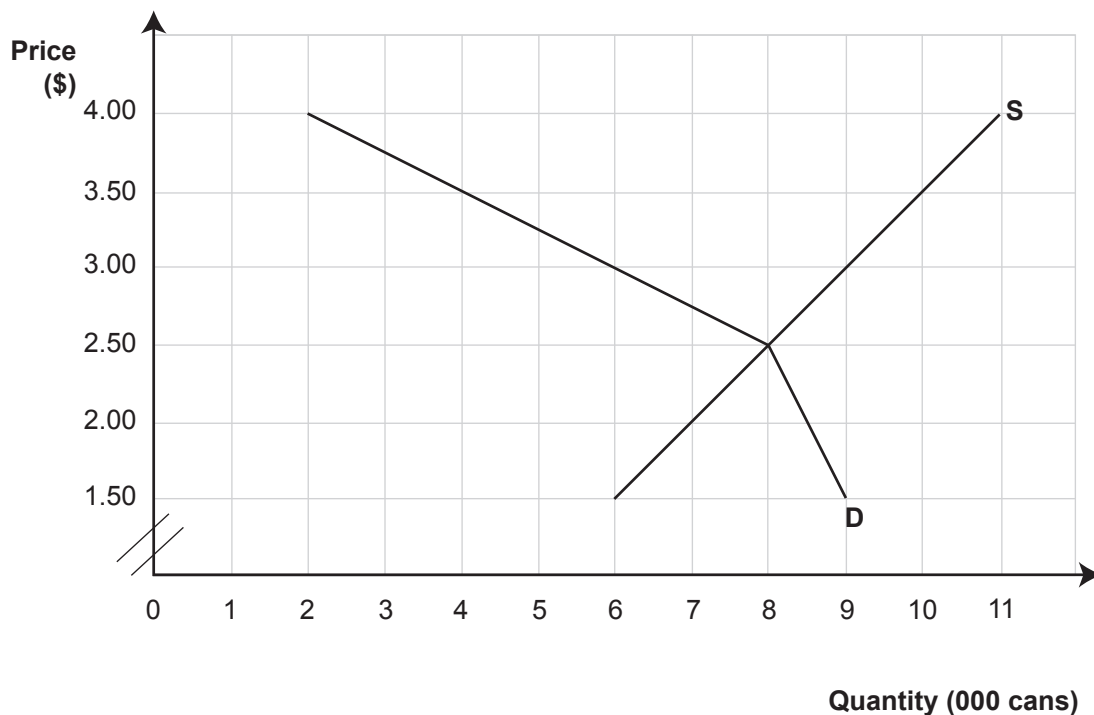
## QUESTION ONE: MARKET EQUILIBRIUM

Fizzy drinks are also called soft drinks, or carbonated drinks, and typically contain a sweetener (such as sugar) and flavouring. The demand and supply for fizzy drinks in Auckland is shown in the table below.

**Auckland market for fizzy drinks (per day)**

Price (\$ per can)	Market Supply (cans)	Market Demand (cans)
1.50		9 000
	7 000	8 500
2.50		8 000
3.00	9 000	6 000
3.50		
4.00	11 000	

**Auckland market for fizzy drinks (per day)**



- (a) Use the information in the graph above to:
- complete the market schedule
  - indicate the market equilibrium price ( $P_e$ ) and market equilibrium quantity ( $Q_e$ ).
- (b) On the graph above, show the market situation if the price for a can of fizzy drink was \$3.00. In your answer:
- use dotted lines to show the quantity demanded (label as  $Q_d$ )
  - use dotted lines to show the quantity supplied (label as  $Q_s$ )
  - fully label the resulting surplus or shortage.



## QUESTION TWO: NON-PRICE FACTOR

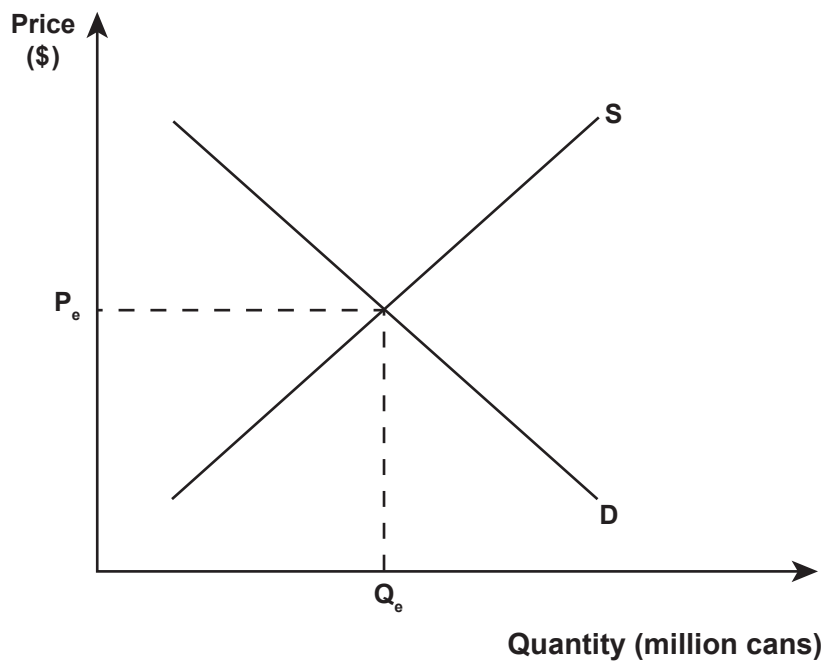
The University of Auckland recently released information about the negative health effects of consuming too many fizzy drinks, such as diabetes, obesity, and cardiovascular disease.

Source (adapted): <https://www.auckland.ac.nz/en/about/news-events-and-notice/news/news-2014/02/tax-on-fizzy-drinks-could-save-the-lives-of-about-67-kiwis-each-year.html>

(a) On the graph below:

- show how the information above would affect the market demand for fizzy drinks in New Zealand
- label the new equilibrium price ( $P_1$ ) and equilibrium quantity ( $Q_1$ ).

**New Zealand market for fizzy drinks (per annum)**



(b) Fully explain the effect of the information on the market for fizzy drinks in New Zealand. In your answer:

- explain the effect on market demand
- explain the change in equilibrium price and equilibrium quantity
- explain the effect on fizzy drink suppliers' revenue
- refer to the graph above.

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### QUESTION THREE: MAXIMUM PRICE

The negative health effects of consuming too much sugar may prompt a maximum price control on bottled water, in order to encourage more consumers to make better choices (away from fizzy drinks).

The graph below shows the effects of a maximum price of \$2.00 per bottle on the market for bottled water.



- (a) On the graph above, show the changes to quantity demanded and quantity supplied of bottled water as a result of the maximum price.
- In your answer:
- use dotted lines to show the equilibrium price and quantity before the maximum price (label as  $P_e$  and  $Q_e$ )
  - use dotted lines to show the new quantity demanded by consumers after the maximum price (label as  $Q_d$ )
  - use dotted lines to show the new quantity supplied by bottled water suppliers after the maximum price (label as  $Q_s$ )
  - fully label the resulting surplus or shortage.



## QUESTION FOUR: SALES TAX

A sales tax has been proposed to reduce sweetened drink consumption and to help reduce obesity. It is believed that a 50 cent tax on fizzy drinks would save as many as 67 New Zealanders' lives per year.

Source (adapted): <https://www.auckland.ac.nz/en/about/news-events-and-notice/news/news-2014/02/tax-on-fizzy-drinks-could-save-the-lives-of-about-67-kiwis-each-year.html>

(a) On the graph below, show the effect of a 50 cent tax on fizzy drinks.

Use dotted lines to show:

- the original equilibrium price and equilibrium quantity (label as  $P_e$  and  $Q_e$ )
- the new equilibrium price (label as  $P_1$ )
- the new equilibrium quantity (label as  $Q_1$ ).





(b) Referring to the graph on page 8, identify and calculate the:

(i) Quantity consumers buy before and after tax

Before: \_\_\_\_\_ cans      After: \_\_\_\_\_ cans

(ii) Price consumers pay before and after tax

Before: \$ \_\_\_\_\_ per can      After: \$ \_\_\_\_\_ per can

(iii) Price sellers receive before and after tax

Before: \$ \_\_\_\_\_ per can      After: \$ \_\_\_\_\_ per can

(iv) Total revenue per month to the Government of this tax (show working).

\$ \_\_\_\_\_

**Working space**

Question Four continues on the following page.





