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91400

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NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

QUALIFY FOR THE FUTURE WORLD
KIA NOHO TAKATŪ KI TŌ ĀMUA AO!

Level 3 Economics, 2017

91400 Demonstrate understanding of the efficiency of different market structures using marginal analysis

2.00 p.m. Wednesday 29 November 2017
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of the efficiency of different market structures using marginal analysis.	Demonstrate in-depth understanding of the efficiency of different market structures using marginal analysis.	Demonstrate comprehensive understanding of the efficiency of different market structures using marginal analysis.

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 2–8 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

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QUESTION ONE: EFFICIENCY OF MONOPOLY AND PERFECT COMPETITION

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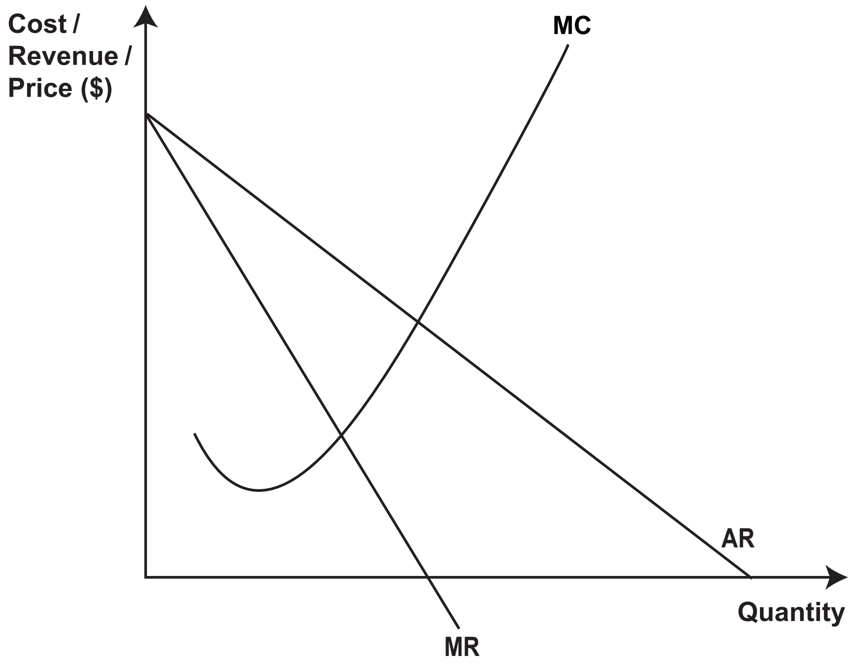
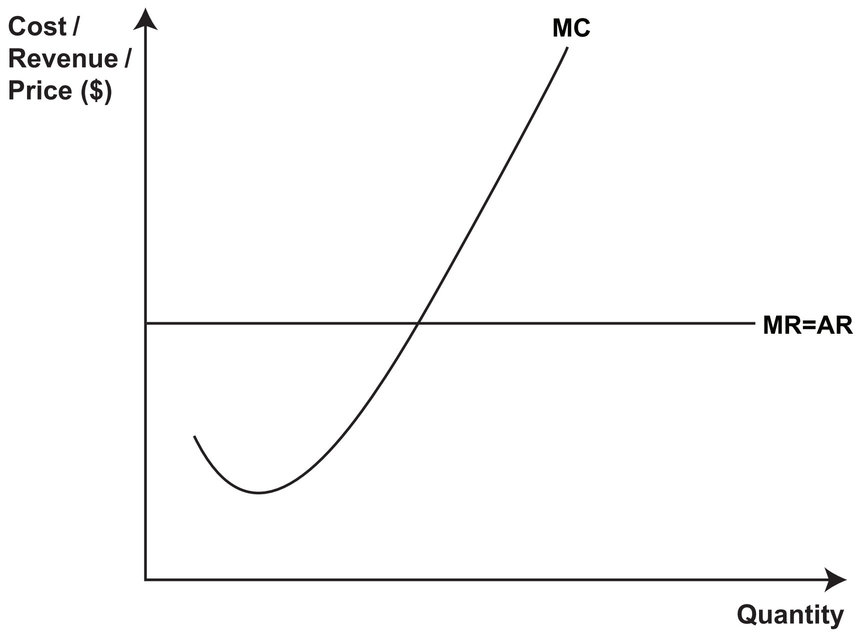
During the last 40 years, the New Zealand Government has implemented a number of policies designed to reduce monopoly power, encourage more competition, and increase efficiency in significant industries such as electricity, telecommunications, and broadcasting.

Graph One: A firm operating in a monopoly market



Graph Two: A firm operating in a perfect competition market



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(a) (i) On Graph One, identify the profit-maximising price (**P_1**) and the profit-maximising quantity (**Q_1**) for the monopolist.

(ii) On Graph One, shade the deadweight loss.

(iii) On Graph Two, identify the profit-maximising price (**P_2**) and the profit-maximising quantity (**Q_2**) for the perfect competitor.

(b) Referring to both graphs and the key characteristics of both markets, explain in detail why a firm operating in a perfectly competitive market is allocatively efficient and why a firm operating in a monopoly market is NOT allocatively efficient.

QUESTION TWO: NATURAL MONOPOLY

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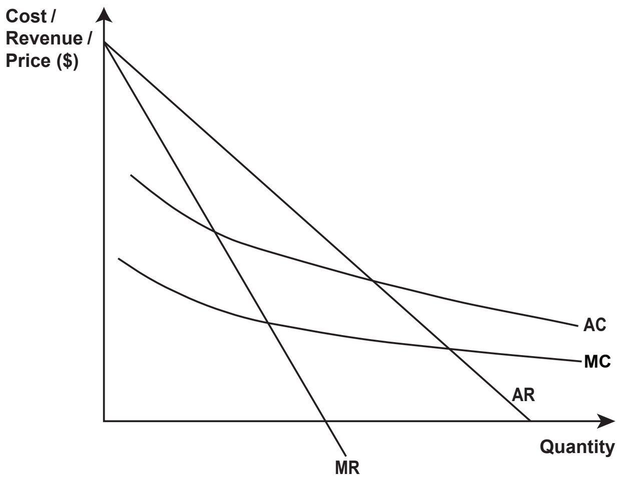
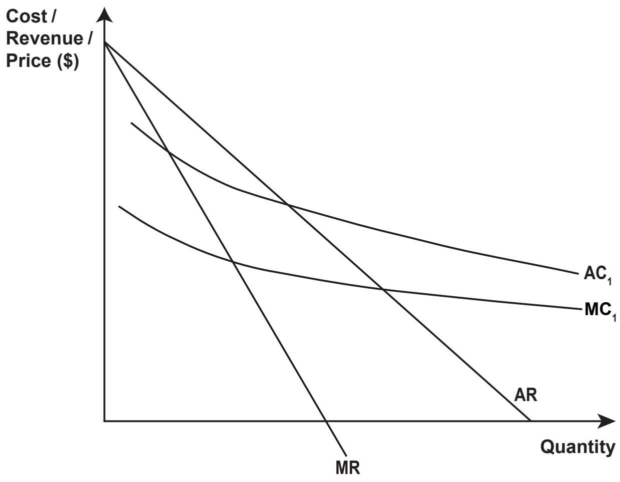
Graph Three: A natural monopoly



Graph Four: A natural monopoly after an increase in variable costs



(a) (i) On Graph Three above, identify the profit-maximising price (**P**) and the profit-maximising quantity (**Q**).

(ii) On Graph Four above, identify the profit-maximising price (**P_1**) and the profit-maximising quantity (**Q_1**).

(b) Use the concept of marginal analysis to explain in detail why the increase in variable costs has resulted in a lower quantity produced for the natural monopolist. Refer to both graphs.

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As a result of the increase in price and reduction in quantity, the Government may decide to implement price controls to make the good more affordable for consumers and the market more efficient. Average cost pricing and marginal cost pricing are two examples of price controls that the Government could use.

(c) On Graph Four, identify

- the price (**P_2**) and quantity produced (**Q_2**) if the Government employed average cost pricing
- the price (**P_3**) and quantity produced (**Q_3**) if the Government employed marginal cost pricing.

(d) Referring to Graph Four, explain in detail:

- which of these two policies would be more beneficial for the consumer
- the impact of both price controls on allocative efficiency.

QUESTION THREE: PERFECT COMPETITION

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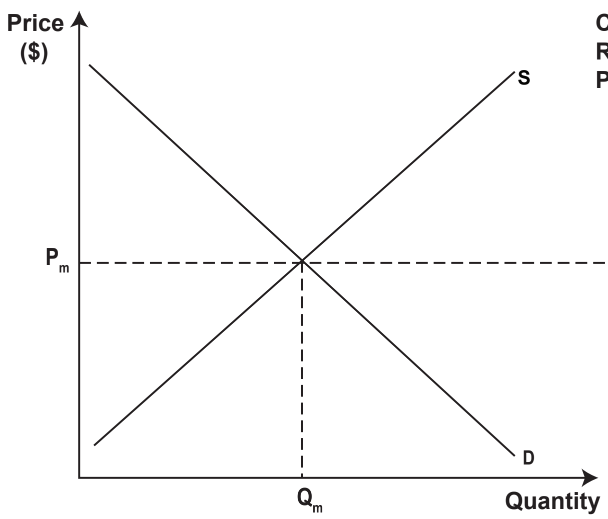
The average rent in the Auckland region has increased 21 per cent in the last five years.

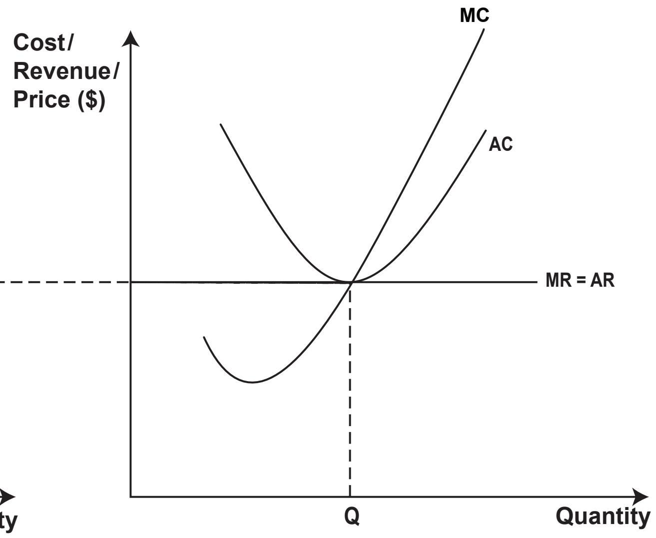
Source (adapted) http://www.stuff.co.nz/life-style/home-property/80706225/auckland-sees-massive-rent-increases--but-not-in-the-places-youd-expect

Increased rents have affected both residential and commercial properties in Auckland and will increase the fixed costs for firms that rent their premises.

Graph Five: The market



Graph Six: The individual perfectly competitive firm



(a) (i) Complete Graph Six to show the impact of an increase in fixed costs on the individual firm. Clearly label any curve shifts.

(ii) On Graph Six, clearly shade the new level of economic profit that would be earned by the individual firm as a result of the increase in fixed costs. Identify the profit as normal, supernormal, or subnormal.

(b) (i) Complete Graph Five to show how the market equilibrium price would be affected in the long run as a result of the increase in fixed costs.

(ii) On Graph Six, show how the changes in the market would affect the long-run levels of output and profit for the individual firm, assuming that the firm stays in the industry.

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(c) Use marginal analysis to compare and contrast the short-run and long-run profit and output decisions of a perfect competitor after an increase in fixed costs. In your answer:

- refer to both graphs
- explain in detail the impact (if any) on the short-run level of output and profit for the individual firm as a result of an increase in fixed costs
- explain in detail how the long-run changes in the market would affect the long-run levels of output and profit for the individual firm, assuming that the firm stays in the industry.

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

QUESTION NUMBER

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