

Answer the questions in the spaces provided on the question sheets. If you run out of room for an answer, continue on the back of the page. Be succinct. Longer answers don't increase your chance of being right, but increase your chance of saying something wrong. **Show how you got your answers in mathematical questions**

Name: _____

1. Say whether the propositions are True or False. If they are False, justify.

(a) The fundamental cause of monopolies is barriers to entry.

(b) Like competitive firms, monopolists charge a price equal to marginal cost.

(c) When a firm operates with excess capacity, it must be in a monopolistically competitive market.

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2. Suppose that you are a monopolist in the market of a specific video game. Your inverse demand curve and cost function are the following:

$$P = 80 - \frac{Q}{2}$$

$$C(Q) = 400 + \frac{Q^2}{2}$$

- (a) Derive the Marginal Cost (MC) and the Marginal Revenue (MR) functions

- (b) Plot a graph with the **demand curve**, the **marginal revenue** curve and the **marginal cost** curves. Label carefully all intercepts of all curves and indicate them with the labels D,MR and MC, respectively.

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(c) Derive the equilibrium price and quantity for that monopolist problem.

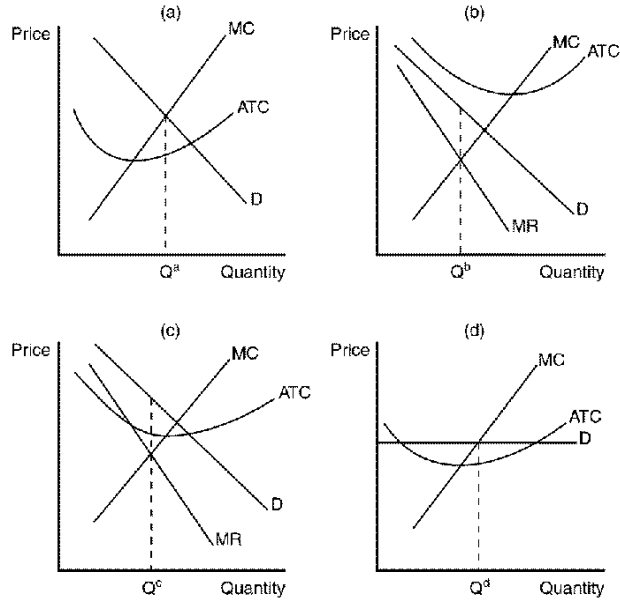
(d) What is your profit?

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- (e) Plot the graph with the demand, MC and MR curves again and indicate the consumer surplus (CS), producer surplus (PS) and deadweight loss (DWL).
- (f) Calculate the values of the consumer surplus (CS), the producer surplus (PS) and the deadweight loss (DWL).

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3. Consider the four graphs below and answer the items that follow. In all items, your answer may be that **more than one or none** of the graphs satisfies the question. **Justify your answer in all items.**



- (a) Which of the graphs shown would be consistent with a profit maximizing firm in a monopolistically competitive market that is earning a positive profit?

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(b) Which of the graphs shown would be consistent with a firm in a monopolistically competitive market that is doing its best but still losing money?

(c) Which of the graphs depicts a monopolistically competitive firm in long-run equilibrium?