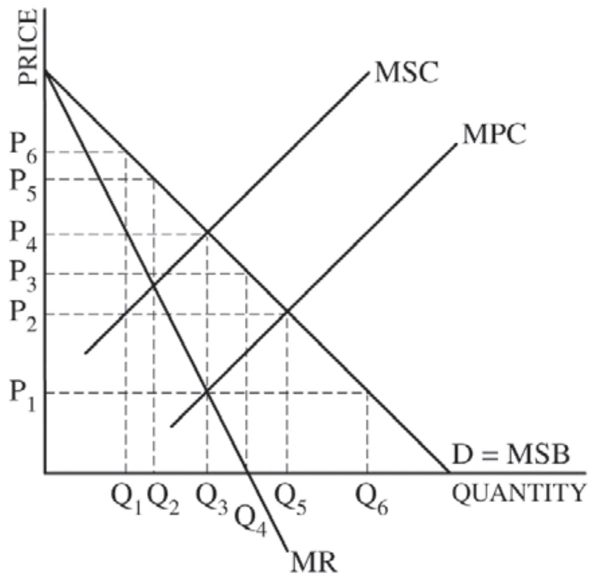
3. The graph below shows the marginal social cost (MSC), marginal private cost (MPC), marginal social benefit (MSB), demand (D), and marginal revenue (MR) curves for a monopoly.



(a) Identify the monopolist's

(i) profit-maximizing quantity

(ii) profit-maximizing price

(b) What information in the graph indicates that there is a negative externality?

(c) Identify the socially optimal quantity.

(d) In the case in which the government imposes a per-unit tax equal to the marginal external cost, identify each of the following.

(i) The dollar value of the tax, using the price labels from the graph

(ii) The profit-maximizing quantity associated with the tax

(e) Given the monopoly facing the negative externality, would the deadweight loss increase, decrease, or stay the same as a result of imposing the per-unit tax? Explain.

STOP

END OF EXAM