

Problem.Ch.11 Monopoly

(Do solved problem 11.2--parts 1-4)

1. The demand and cost functions for Wayless, a dietary supplement, are as follows

$$p = 85 - 2Q$$

$$C(Q) = 5Q + F$$

Where F is a fixed cost.

- i. What is marginal cost? How much Wayless would a monopolist produce?
 - ii. What price would it charge? How much profit would it earn?
2. Suppose a monopolist has a constant average and marginal costs equal to \$8. Suppose that the market demand curve is given by $Q = 80 - P$
- i. Calculate profit maximizing price, quantity along with the firm's profit.
 - ii. What output would be produced under perfect competition assuming no change in costs?
 - iii. Calculate the deadweight loss due to monopoly.

Answer

1. a. Marginal cost is \$5, the profit-maximizing output is 20 units, the profit-maximizing price is \$45, and profit is $800 - F$.
2. a. $P = 44$, $Q = 36$, profit = 1296
- b. $P = 8$, $Q = 72$.
- c. $DWL = 648$