2. Utility and price elasticity of demand are important concepts in explaining consumer behavior.

    (a) Define marginal utility.

    (b) The table below shows the quantities, prices, and marginal utilities of two goods, fudge and coffee, which Mandy purchases.

	Fudge	Coffee
Quantity of purchase	10 pounds	7 pounds
Price per pound	$2	$4
Marginal utility of last pound	12	20

    Mandy spends all her money and buys only these two goods. In order to maximize her utility, should Mandy purchase more fudge and less coffee, purchase more coffee and less fudge, or maintain her current consumption? Explain.
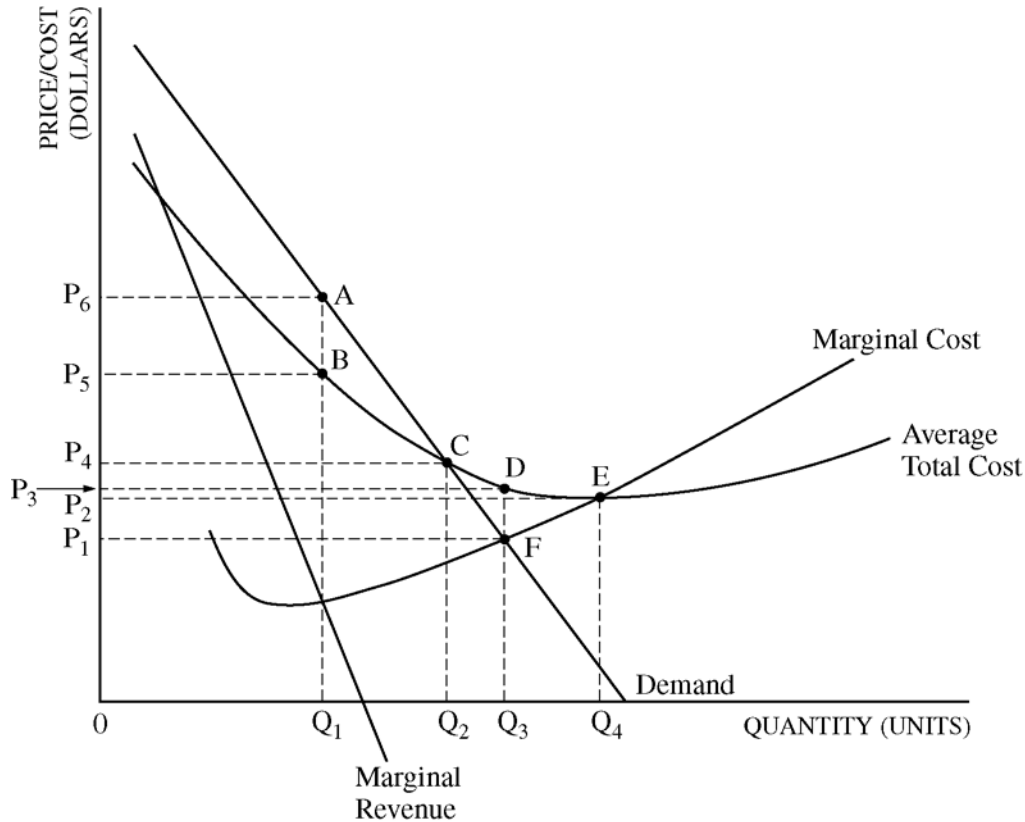
    (c) Assume that consumers always buy 20 units of good R each month regardless of its price.

      (i) What is the numerical value of the price elasticity of demand for good R?

      (ii) If the government implements a per-unit tax of $2 on good R, how much of the tax will the seller pay?

GO ON TO THE NEXT PAGE.

3. Social efficiency is affected by government policy and the structure of markets.

   (a) For a competitive market for which there is a binding (effective) price ceiling, draw a correctly labeled graph and label the price ceiling "P_C", the quantity sold "Q_A", and the socially efficient output "Q_B".

   (b) The graph below shows a natural monopoly.

   (i) Using the labeling in the graph, identify each of the following.

      (1) The profit-maximizing output

      (2) The socially efficient output

   (ii) At the socially efficient output, is the monopoly making a profit or incurring a loss? Using the labeling on the graph, identify the area of profit or loss.

STOP

END OF EXAM

5 points (1 + 2 + 2)

(a) 1 point:
- One point is earned for defining marginal utility as the extra satisfaction received from consuming an additional unit of a good or service.

(b) 2 points:
- One point is earned for concluding that Mandy should purchase more fudge and less coffee.
- One point is earned for explaining that the per dollar MU for fudge is greater than the per dollar MU for coffee.

(c) 2 points:
- One point is earned for stating that the price elasticity of demand for good R is zero.
- One point is earned for stating that none of the tax will be paid by the seller of good R, or that buyers pay all of the tax.