

Problem Set #12- Key

Sonoma State University
Economics 305-Intermediate Microeconomic Theory

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Consider the following Quantity, Price and Total Cost schedule for a single price monopolist.

Table 1

Price per unit	Quantity	Total Revenue	Marginal Revenue	Total Cost	Marginal Cost
10	0	0	-----	100	-----
8	100	800	8	300	3
6	200	1200	4	700	4
4	300	1200	0	1300	6
2	400	800	-4	2100	8
0	500	0	-8	3100	10

- (1) Complete Table One.
- (2) For a single price monopolist, what is the profit maximizing output?
Output = 200
- (3) For a single price monopolist, what is the profit maximizing price per unit?
Price per unit = \$6
- (4) At the single price monopolists profit maximizing output and price, what is the profit per unit?
 $\pi/Q = P - ATC$
 $\pi/Q = \$6 - \$700/200 = \$2.50$
- (5) At the single price monopolists profit maximizing output and price, what is the total profit?
Total profit = $(2.50)(200) = \$500$
- (6) Show the above monopolist graphically. Assume standard “U” shaped cost curves. Shown below.
- (7) At what price is the price elasticity of demand equal to one? Hint, you do not need to actually calculate elasticity.

Price elasticity is equal to one when total revenue is maximized.. This occurs at a price between \$4 and \$6 per unit.

Figure 1

