

Homework Problem #25 Pure Monopoly

PRINT YOUR NAME _____
(LAST) (FIRST)

Like other producers in a market economy, a pure monopolist tries to maximize profit by producing at an output where marginal cost (MC) equals marginal revenue (MR). For a firm in a competitive market, price and marginal revenue are the same, but for a monopolist, who "sees" the entire market demand curve and who must charge all buyers the same price, marginal revenue is below price. This problem considers the choice of output level by a monopolist. The next homework problem compares a competitive industry with a monopoly industry.

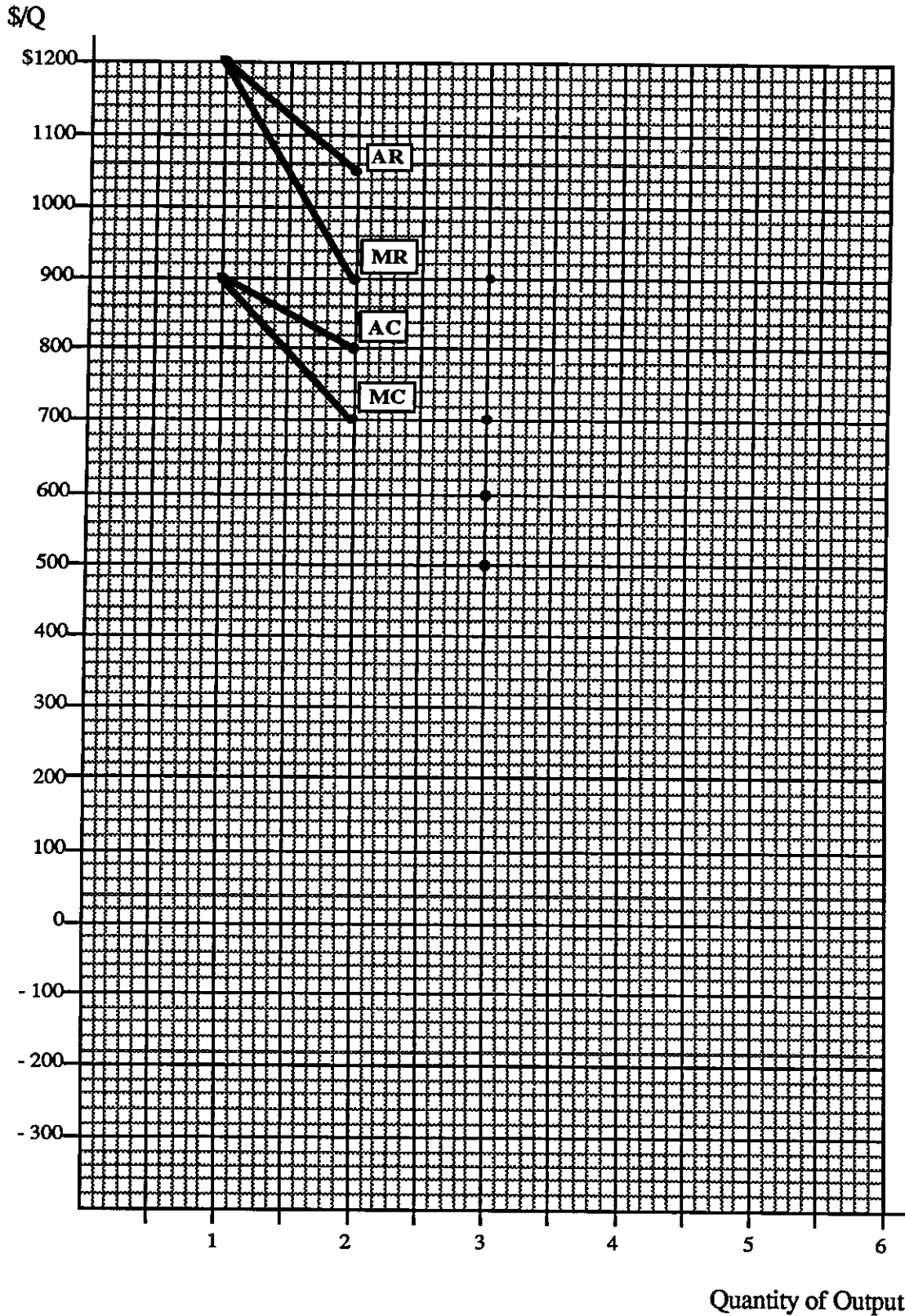
The table below presents a summary of the relevant cost and revenue data facing a pure monopoly firm. Fill in the blanks in the table and complete the job of plotting the data for MC, MR, AC (average cost) and AR (average revenue) in the graph on page 157. Since in this problem output cannot increase by a fraction of a unit, the plotted data should connect the points at the output intervals shown in the table. After you have completed the table and the graph, answer the questions below by filling in the blanks and shading in the area indicated in Question #5.

<u>Quantity of Output</u>	<u>Total Cost</u>	<u>Marginal Cost</u>	<u>Average Cost</u>	<u>Total Revenue</u>	<u>Marginal Revenue</u>	<u>Average Revenue (Price)</u>
0	\$ 0		\$ 0	\$ 0		\$ 0
1	900	\$900	900	1,200	\$1,200	1,200
2	1,600	700	800	2,100	900	1,050
3	2,100	_____	700	2,700	_____	900
4	2,400	_____	_____	3,000	300	_____
5	3,000	600	_____	3,000	_____	_____
6	4,200	1,200	_____	2,700	-300	_____

Questions Based on Table and Graph

- A profit maximizing monopolist would produce an output of _____ units.
- At this level of output MC is \$_____ per unit and MR is \$_____ per unit.
- At this level of output the AC is \$_____ per unit and the AR (price) is \$_____ per unit.
- This gives the monopolist an economic profit of \$_____ per unit for a total economic profit of \$_____.
- Shade in the area on the graph that represents the total profit figure indicated in your answer to Question #4.

PRINT YOUR NAME _____
(LAST) (FIRST)



Note: Each small square = \$20 on the vertical axis and 1/10 unit of output on the horizontal axis.