

Q1: Fill in the blanks in the following table. Then use the table to answer the questions:

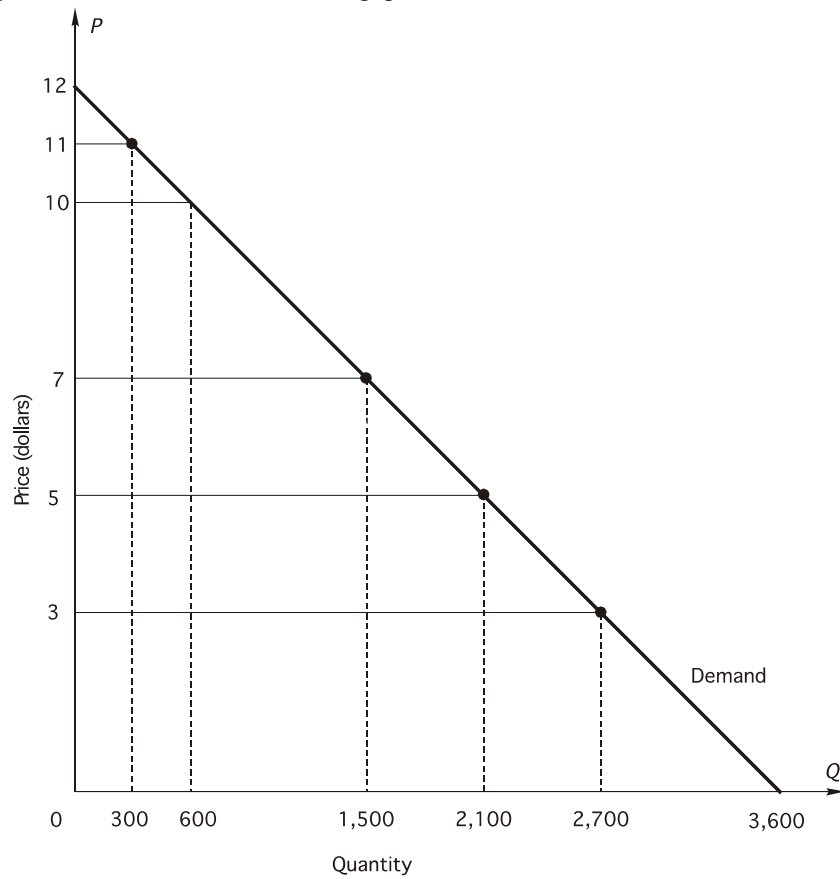
<u>X</u>	<u>Total Benefit</u>	<u>Total Cost</u>	<u>Marginal Benefit</u>	<u>Marginal Cost</u>	<u>Net Benefit</u>
0	_____	0	xx	xx	0
1	200	30	_____	_____	_____
2	_____	_____	100	_____	230
3	_____	_____	_____	50	270
4	450	_____	_____	65	_____
5	_____	255	30	_____	_____
6	500	_____	_____	75	_____

- If activity X is increased from 3 to 4 units, calculate the change about the total benefit.
- If X is increased from 3 to 4 units, calculate the total cost change.
- If X is decreased from 6 to 5 units, calculate the total benefit change, total cost change and net benefit change.
- Calculate the the optimal level of activity, and net benefit at the optimal level of activity.

Q2: During a year of operation, a firm collects \$450,000 in revenue and spends \$100,000 on labor expense, raw materials, rent, and utilities. The firm's owner has provided \$750,000 of her own money instead of investing the money and earning a 10% annual rate of return.

- Calculate the explicit opportunity costs of using market-supplied resources, the implicit opportunity costs of using owner-supplied resources, and the total economic cost. (6 marks)
- Calculate the economic profit this firm earns and its accounting profit. (4 marks)
- When the revenue is \$450,000, if the owner could earn 15% annually on the money she has invested in the firm, calculate the economic profit the firm would earn. (2 marks)

Q3: Use the figure below to answer the following questions:



- Calculate the elasticity of demand over the price interval \$11 to \$10.
- Calculate the elasticity of demand over the price interval \$7 to \$5.
- Calculate the elasticity of demand over the price interval \$5 to \$3.