

**Managerial Economics
(Econ 42403)**

SPRING 2012

Home Work Assignments

Assignment # 3

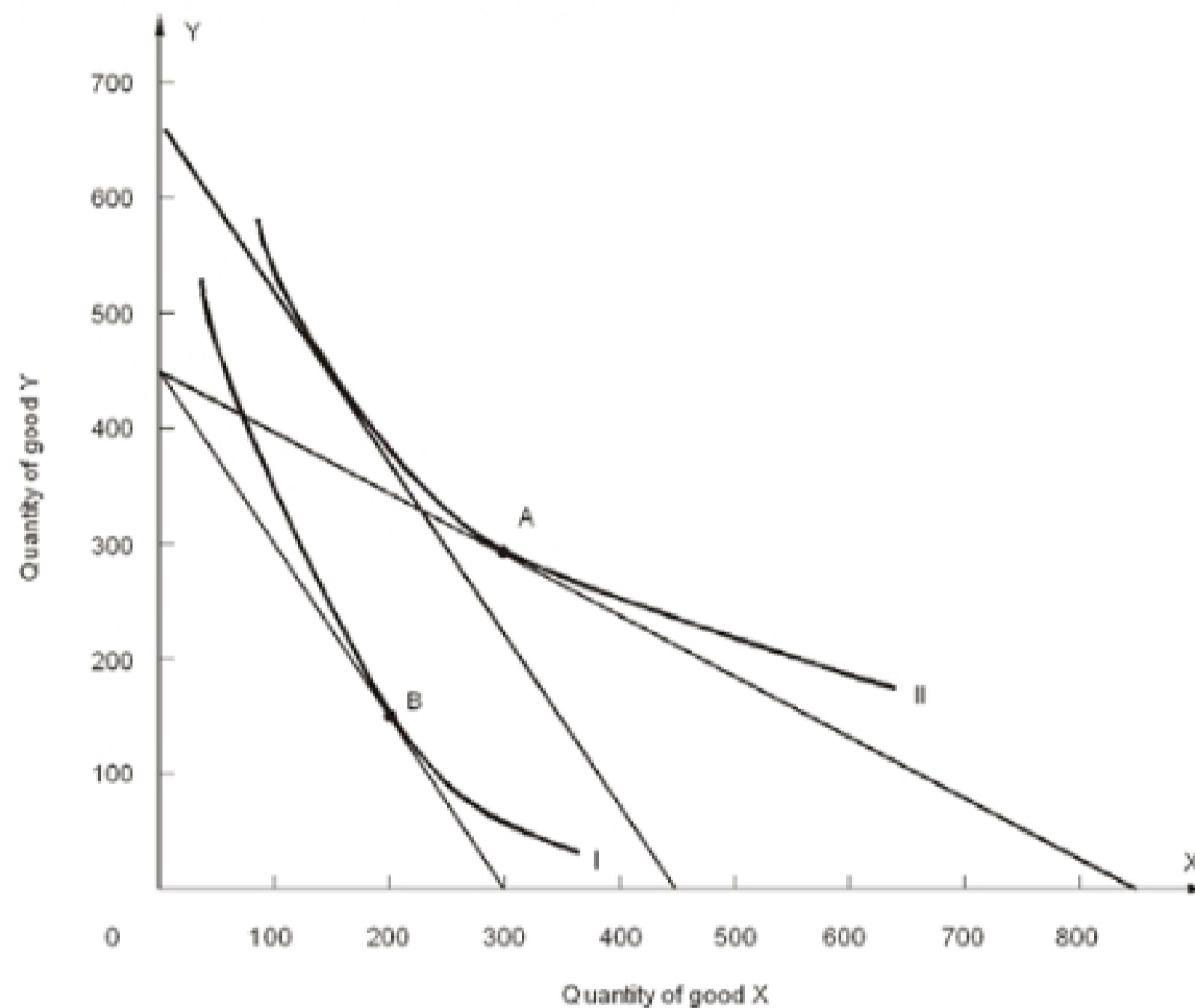
Due date: March 22, 2012

TEXT

- Chapter 5: Applied Problems: 2, 4 & 6
 Chapter 6: Applied Problems: 2, 4, 7 & 8
 Chapter 7: Applied Problems: 1 & 3

Working Sheet

1. The figure shows a portion of a consumer's indifference map and budget lines. The price of good Y is \$17 and the consumer's income is \$7,650. Let the consumer begin in utility-maximizing equilibrium at point A on indifference curve II. Next the price of good X changes so that the consumer moves to a new utility-maximizing equilibrium at point B on indifference curve I.

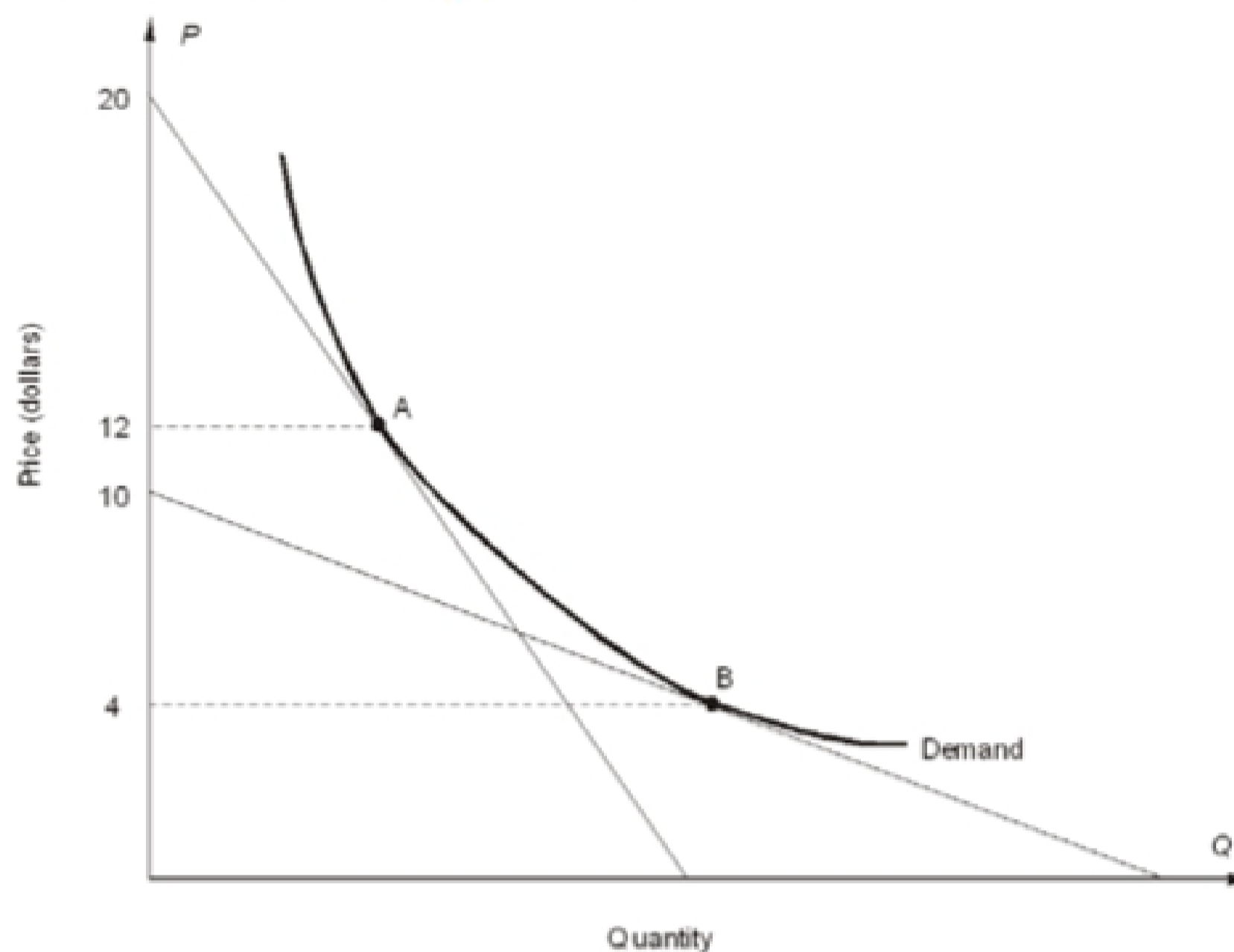


- a. Two points on this consumer's demand for good X are $P_x =$ _____ and $X =$ _____; and $P_y =$ _____ and $X =$ _____.
- b. The substitution effect of the change in the price of X is _____; the income effect is _____; the total effect is _____.
- c. Good X is a(an) _____ good.

2. Using the following demand schedule, calculate total revenue, marginal revenue, and price elasticity of demand. Then show the relation among marginal revenue, price, and elasticity of demand.

<i>Price</i>	<i>Quantity demanded</i>	<i>Total revenue</i>	<i>Marginal revenue</i>	<i>Elasticity of demand</i>
\$100	40	_____	XX	XX
90	50	_____	_____	_____
80	60	_____	_____	_____
70	70	_____	_____	_____
60	80	_____	_____	_____
50	90	_____	_____	_____

3. Use the graph below to answer the following questions:



- The elasticity of demand at a price of \$12 is _____.
- The elasticity of demand at a price of \$4 is _____.
- At point A, if price increases by a small amount, total revenue _____ (rises, falls, remains constant), and marginal revenue is _____ (positive, negative, zero).
- At point B, if price decreases by a small amount, total revenue _____ (rises, falls, remains constant), and marginal revenue is _____ (positive, negative, zero).

4. The estimated market demand for good X is $Q_d = 8,000 - 25P - 0.12M - 30P_G$

where Q_d is the estimated number of units of good X demanded, P is the price of the good, M is income, and P_G is the price of related good G . (All parameter estimates are statistically significant at the 1 percent level of significance.)

a. Good X is a(n) _____ good and goods X and G are _____.

b. At $P = \$12$, $M = \$30,000$, and $P_G = \$50$, the predicted quantity demanded is _____ units of good X .

c. At the values in part b , calculate estimates of the following elasticities:

(1) Price elasticity: $E =$ _____.

(2) Cross-price elasticity: $E_{XG} =$ _____.

(3) Income elasticity: $E_M =$ _____.