

- If a decrease in the price of one good causes a decrease in demand for another good, the two goods are _____.
- If the value of the cross-price elasticity of demand between two goods is approximately zero, they are considered _____.

CHAPTER 6

6-1 Explain why marginal utility decreases as more of a good or service is consumed

- (*Law of Diminishing Marginal Utility*) Some restaurants offer "all you can eat" meals. How is this practice related to diminishing marginal utility? What restrictions must the restaurant impose on the customer to make a profit?
- (*Law of Diminishing Marginal Utility*) Complete each of the following sentences:
 - Your tastes determine the _____ you derive from consuming a particular good.
 - _____ utility is the change in _____ utility resulting from a(n) _____ change in the consumption of a good.
 - As long as marginal utility is positive, total utility is _____.
 - The law of diminishing marginal utility states that as an individual consumes more of a good during a given time period, other things constant, total utility _____.
- (*Marginal Utility*) Is it possible for marginal utility to be negative while total utility is positive? If yes, under what circumstances is it possible?

6-2 Given tastes, the prices for two different goods, and a budget constraint, describe the utility-maximizing condition in your own words

- (*Utility Maximization*) The following tables illustrate Eileen's utilities from watching first-run movies in a theater and from renting movies from a video store. Suppose that she has a monthly movie budget of \$36, each movie ticket costs \$6, and each video rental costs \$3.

Movies in a Theater

Q	TU	MU	MU/P
0	0	_____	_____
1	200	_____	_____
2	290	_____	_____
3	370	_____	_____
4	440	_____	_____
5	500	_____	_____
6	550	_____	_____
7	590	_____	_____

Movies from a Video Store

Q	TU	MU	MU/P
0	0	_____	_____
1	250	_____	_____
2	295	_____	_____
3	335	_____	_____
4	370	_____	_____
5	400	_____	_____
6	425	_____	_____

- Complete the tables.
- Do these tables show that Eileen's preferences obey the law of diminishing marginal utility? Explain your answer.
- How much of each good does Eileen consume in equilibrium?
- Suppose the prices of both types of movies drop to \$1 while Eileen's movie budget shrinks to \$10. How much of each good does she consume in equilibrium?

- (*Utility Maximization*) Suppose that a consumer has a choice between two goods, X and Y . If the price of X is \$2 and the price of Y is \$3, how much of X and Y does the consumer purchase per period, given an income of \$17 per period? Use the following information about marginal utility:

Units	MU_X	MU_Y
1	10	5
2	8	4
3	2	3
4	2	2
5	1	2

- (*The Law of Demand and Marginal Utility*) Daniel allocates his budget of \$24 per week among three goods. Use the following table of marginal utilities for good A , good B , and good C to answer the questions below:

Q_A	MU_A	Q_B	MU_B	Q_C	MU_C
1	50	1	75	1	25
2	40	2	60	2	20
3	30	3	40	3	15
4	20	4	30	4	10
5	15	5	20	5	7.5

- If the price of A is \$2, the price of B is \$3, and the price of C is \$1, how much of each does Daniel purchase in equilibrium?
- If the price of A rises to \$4 while other prices and Daniel's budget remain unchanged, how much of each does he purchase in equilibrium?
- Using the information from parts (a) and (b), draw the demand curve for good A . Be sure to indicate the price and quantity demanded for each point on the curve.

6-3 Explain how can you get a consumer surplus from consuming a particular good if, in equilibrium, your marginal valuation of the good just equals the price you pay

- (*Consumer Surplus*) Suppose the linear demand curve for shirts slopes downward and that consumers buy 500 shirts per year when the price is \$30 and 1,000 shirts per year when the price is \$25.
 - Compared to the prices of \$30 and \$25, what can you say about the marginal valuation that consumers place on the 300th shirt, the 700th shirt, and the 1,200th shirt they might buy each year?
 - With diminishing marginal utility, are consumers deriving any consumer surplus if the price is \$25 per shirt? Explain.
 - Use a market demand curve to illustrate the change in consumer surplus if the price drops from \$30 to \$25.