Price per Bushel	Quantity Demanded (millions of bushels)	Quantity Supplied (millions of bushels)	Surplus/ Shortage	Will Price Rise or Fall?
$1.80	320	200	______	______
2.00	300	230	______	______
2.20	270	270	______	______
2.40	230	300	______	______
2.60	200	330	______	______
2.80	180	350	______	______

13. *(Market Equilibrium)* Determine whether each of the following statements is true, false, or uncertain. Then briefly explain each answer.
    a. In equilibrium, all sellers can find buyers.
    b. In equilibrium, there is no pressure on the market to produce or consume more than is being sold.
    c. At prices above equilibrium, the quantity exchanged exceeds the quantity demanded.
    d. At prices below equilibrium, the quantity exchanged is equal to the quantity supplied
14. *(Changes in Equilibrium)* What are the effects on the equilibrium price and quantity of steel if the wages of steelworkers rise and, simultaneously, the price of aluminum rises?

4-7 Describe the result of a government-set price floor or price ceiling on a market

15. *(Price Floor)* There is considerable interest in whether the minimum wage rate contributes to teenage unemployment. Draw a demand and supply diagram for the unskilled labor market, and discuss the effects of a minimum wage. Who is helped and who is hurt by the minimum wage law?

CHAPTER 5

5-1 Define and graph the price elasticity of demand

1. *(Calculating Price Elasticity of Demand)* Suppose that 50 units of a good are demanded at a price of $1 per unit. A reduction in price to $0.20 results in an increase in quantity demanded to 70 units. Show that these data yield a price elasticity of 0.25. By what percentage would a 10 percent rise in the price reduce the quantity demanded, assuming price elasticity remains constant along the demand curve?
2. *(Price Elasticity and Total Revenue)* Fill in the blanks for each price-quantity combination listed in the following table. Now graph this relationship, making sure to label each axis. What relationship have you depicted?

P	Q	Price Elasticity	Total Revenue
$9	1	______	______
$8	2	______	______
$7	3	______	______
$6	4	______	______
$5	5	______	______
$4	6	______	______
$3	7	______	______
$2	8	______	______

3. *(Categories of Price Elasticity of Demand)* For each of the following absolute values of price elasticity of demand, indicate whether demand is elastic, inelastic, perfectly elastic, perfectly inelastic, or unit elastic. In addition, determine what would happen to total revenue if a firm raised its price in each elasticity range identified.

	Absolute Value	Elasticity	Effect of Price Increase
a	$E_D = 2.5$		
b	$E_D = 1.0$		
c	$E_D = \infty$		
d	$E_D = 0.8$		

5-2 Identify the determinants of the price elasticity of demand

4. *(Determinants of Price Elasticity)* Why is the price elasticity of demand for Coca-Cola greater than the price elasticity of demand for soft drinks generally?
5. *(Determinants of Price Elasticity)* Would the price elasticity of demand for electricity be more elastic over a shorter or a longer period of time?

5-3 Define and graph the price elasticity of supply

6. *(Price Elasticity of Supply)* Calculate the price elasticity of supply for each of the following combinations of price and quantity supplied. In each case, determine whether supply is elastic, inelastic, perfectly elastic, perfectly inelastic, or unit elastic.
    a. Price falls from $2.25 to $1.75; quantity supplied falls from 600 units to 400 units.
    b. Price falls from $2.25 to $1.75; quantity supplied falls from 600 units to 500 units.
    c. Price falls from $2.25 to $1.75; quantity supplied remains at 600 units.
    d. Price increases from $1.75 to $2.25; quantity supplied increases from 466.67 units to 600 units.

5-4 Describe other measures of elasticity

7. *(Cross-Price Elasticity)* Rank the following in order of increasing (from negative to positive) cross-price elasticity of demand with coffee. Explain your reasoning.

   Bleach ______ Tea ______ Cream ______ Cola ______

8. *(Income Elasticity of Demand)* Calculate the income elasticity of demand for each of the following goods:

	Quantity Demanded When Income Is $10,000	Quantity Demanded When Income Is $20,000
Good 1	10	25
Good 2	4	5
Good 3	3	2

9. *(Other Elasticity Measures)* Complete each of the following sentences:
    a. The income elasticity of demand measures, for a given price, the ______ in quantity demanded divided by the ______ income from which it resulted.