1. **Refer to Figure: Supply and Demand.** What is the equilibrium price of this good? **Difficulty 1/3**
   a. $9  
   b. $11  
   c. $12  
   d. $10

2. **Refer to Figure: Supply and Demand.** If a price ceiling of $13 is imposed on this good, what is the consequence? **Difficulty 2/3**
   a. A shortage of 7,000 units  
   b. A surplus of 7,000 units  
   c. A deadweight loss of $7,000  
   d. Nothing, the ceiling is not binding
3. **Refer to Figure: Supply and Demand.** If a tax of $7 is imposed on this good, what is the deadweight loss? **Difficulty 2/3**
   a. $21,000  
   b. $7,000  
   c. $14,000  
   d. $42,000  

4. **Refer to Figure: Supply and Demand.** What is total surplus in equilibrium? **Difficulty 2/3**
   a. $42,000  
   b. $68,000  
   c. $168,000  
   d. $84,000  

5. **Refer to Figure: Supply and Demand.** Use the midpoint method to calculate the price elasticity of supply between prices of $7 and $9. **Difficulty 2/3**
   a. 0.625  
   b. 1.2  
   c. 1.6  
   d. 2.0  

6. **Refer to Figure: Supply and Demand.** Which of the following is the equation for the supply curve? **Difficulty 2/3**
   a. \( P_s = 3 + 1.5Q_s \)  
   b. \( P_s = 3 + (2/3)Q_s \)  
   c. \( P_s = 3 - (2/3)Q_s \)  
   d. \( P_s = 3 - 1.5Q_s \)  

7. **Refer to Figure: Supply and Demand.** Using the point-slope formula, what is the price elasticity of demand in equilibrium? **Difficulty 2/3**
   a. 2.22  
   b. 1.83  
   c. 0.55  
   d. 1.08  

8. **Refer to Figure: Supply and Demand.** What is the proportion of tax incidence on buyers for a tax of less than $14 per unit? **Difficulty 2/3**
   a. 3/7  
   b. 4/7  
   c. 2/7  
   d. 5/7  

9. **Refer to Figure: Supply and Demand.** What is the maximum surplus available to workers given a minimum wage of $14? **Difficulty 3/3**
   a. $54,000  
   b. $48,000  
   c. $76,000  
   d. $63,000  

10. **Refer to Figure: Supply and Demand.** Suppose the cost of suppliers increases and the willingness to pay of buyers increases. Which of the following combinations of equilibrium price and quantity are possible? **Difficulty 3/3**
    a. \( p = 11, q = 10,000 \)  
    b. \( p = 8, q = 14,000 \)  
    c. \( p = 12, q = 16,000 \)  
    d. \( p = 14, q = 8,000 \)
Scenario: Supply and Demand. Suppose demand is given by the equation $P_D = 54 - 1.5Q_D$ and supply is given by the equation $P_S = 6 + 2.5Q_S$. Price is in dollars, quantity is given in thousands of units.

11. Refer to Scenario: Supply and Demand. What is the equilibrium price? Difficulty 2/3
   a. $39
   b. $34
   c. $36
   d. $30

12. Refer to Scenario: Supply and Demand. What is producer surplus in equilibrium? Difficulty 2/3
   a. $180,000
   b. $200,000
   c. $165,000
   d. $150,000

13. Refer to Scenario: Supply and Demand. Which curve is more elastic in equilibrium? Difficulty 1/3
   a. demand
   b. supply
   c. their elasticities are equal
   d. cannot be determined

14. Refer to Scenario: Supply and Demand. What is the deadweight loss associated with a tax of $12 per unit? Difficulty 2/3
   a. $18,000
   b. $20,000
   c. $16,000
   d. $22,000

15. Refer to Scenario: Supply and Demand. If the supply equation was $P_S = 18 + 1.5Q_S$ instead of the equation written in the scenario, would deadweight loss... Difficulty 2/3
   a. decrease
   b. increase
   c. stay the same
   d. cannot be determined

16. Refer to Scenario: Supply and Demand. If the supply equation was $P_S = 18 + 1.5Q_S$ instead of the equation written in the scenario, would the tax incidence on sellers... Difficulty 2/3
   a. decrease
   b. increase
   c. stay the same
   d. cannot be determined

17. Refer to Scenario: Supply and Demand. Suppose a tax of $1.92 per unit is placed on buyers, and a tax of $2.08 per unit is placed on sellers. What is the proportion of tax incidence on buyers? Difficulty 3/3
   a. $2/5$
   b. $3/5$
   c. $3/8$
   d. $5/8$

18. Suppose the government has adopted a point on the increasing portion of the Laffer curve. Which of the following statements is true? Difficulty 2/3
   a. Efficiency could be improved by increasing the tax.
   b. The slope of the Laffer curve at the current level of taxation is negative.
   c. Revenue will decrease if the tax is increased.
   d. An increase in the tax will result in an increase in deadweight loss.
19. Suppose total revenue of all firms in equilibrium is $25 million, and the price elasticity of demand in equilibrium is 0.8. If there is an increase in the number of firms in the market, what happens to total revenue? **Difficulty 2/3**
   a. decreases
   b. increases
c. stays the same
d. cannot be determined

**Scenario: Two Goods.** Suppose 14,000 units of good x are sold when the price of good y is $8, and that 10,000 units of good x are sold when the price of good y is $10.

20. **Refer to Scenario: Two Goods**? What is the cross-price elasticity of demand? **Difficulty 2/3**
   a. 1.5
   b. -0.5
c. 0.5
d. -1.5

21. **Refer to Scenario: Two Goods**? What word best describes goods x and y? **Difficulty 1/3**
   a. substitutes
   b. normal
c. complements
d. inferior

22. Suppose the willingness to pay of Thomas, George, Abe, and James is $25, $14, $19, and $16, respectively. If the price is $17, what is consumer surplus? **Difficulty 1/3**
   a. $9
   b. $10
c. $11
d. $12

23. What is a potential unintended consequence of a price ceiling? **Difficulty 1/3**
   a. Excess inventory.
b. Sellers offering illegal low prices.
c. Illegal discrimination of buyers by sellers.
d. All of the above.

24. If deadweight loss is $10,000 under a tax of $1 per unit, what is deadweight loss under a tax of $3 per unit? **Difficulty 2/3**
   a. $60,000
   b. $45,000
c. $70,000
d. $90,000

25. What is the income elasticity of demand for a normal good? **Difficulty 1/3**
   a. Greater than 1
   b. Greater than 0
c. Equal to zero
d. Less than zero
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Answer Section

Multiple Choice

1. ANS: B  DIF: 1/3  Ref: Ch. 4
2. ANS: D  DIF: 2/3  Ref: Ch. 6
3. ANS: A  DIF: 2/3  Ref: Ch. 8
4. ANS: D  DIF: 2/3  Ref: Ch. 7
5. ANS: C  DIF: 2/3  Ref: Ch. 5
6. ANS: B  DIF: 2/3  Ref: Math review
7. ANS: B  DIF: 2/3  Ref: Ch. 5
8. ANS: A  DIF: 2/3  Ref: Ch. 6
9. ANS: A  DIF: 2/3  Ref: Ch. 7
10. ANS: D  DIF: 2/3  Ref: Ch. 4
11. ANS: C  DIF: 2/3  Ref: Ch. 4
12. ANS: A  DIF: 2/3  Ref: Ch. 7
13. ANS: A  DIF: 1/3  Ref: Ch. 5
14. ANS: A  DIF: 2/3  Ref: Ch. 8
15. ANS: B  DIF: 2/3  Ref: Ch. 8
16. ANS: A  DIF: 2/3  Ref: Ch. 8
17. ANS: C  DIF: 3/3  Ref: Ch. 8
18. ANS: D  DIF: 2/3  Ref: Ch. 8
19. ANS: A  DIF: 2/3  Ref: Ch. 5
20. ANS: D  DIF: 2/3  Ref: Ch. 5
21. ANS: C  DIF: 1/3  Ref: Ch. 5
22. ANS: B  DIF: 1/3  Ref: Ch. 7
23. ANS: C  DIF: 1/3  Ref: Ch. 6
24. ANS: D  DIF: 2/3  Ref: Ch. 8
25. ANS: B  DIF: 1/3  Ref: Ch. 5