$\qquad$ R Number: $\qquad$ Roster \#: $\qquad$

1. If an item increases $30 \%$ in price and the quantity decreases by $40 \%$, the price elasticity of demand is:
A) 0 .
B) 1 .
C) greater than 1 .
D) less than 1 , but greater than 0 .

Use the following to answer question 2:

## Table: Market for Fried Twinkies

|  | Market for Fried Twinkies |  |
| :--- | :---: | :---: |
| Price (unit) | Quantity Demanded <br> (units) | Quantity Supplied <br> (units) |
| $\$ 1.10$ | 9,000 | 3,000 |
| 1.20 | 8,000 | 5,000 |
| 1.30 | 7,000 | 7,000 |
| 1.40 | 6,000 | 9,000 |
| 1.50 | 5,000 | 1,100 |

2. (Table: Market for Fried Twinkies) Given current market data, of the $\$ 0.30$ tax per fried

Twinkie, consumers actually pay $\qquad$ , while producers actually pay $\qquad$ .
A) $\$ 0.30 ; \$ 0.00$
B) $\$ 0.15 ; \$ 0.15$
C) $\$ 0.20 ; \$ 0.10$
D) $\$ 0.00 ; \$ 0.30$
3. A competitive market for gadgets is currently in equilibrium. Now the government imposes a price ceiling in the gadget market. Which of the following is most likely to happen to consumer surplus and to producer surplus?
A) Consumer surplus will fall and producer surplus will rise.
B) Consumer surplus will rise and producer surplus will fall.
C) Both consumer and producer surplus will fall.
D) There will be no change to either consumer or producer surplus.
4. If total revenue goes down when price falls, the price elasticity of demand is said to be:
A) price-inelastic.
B) price unit-elastic.
C) price-elastic.
D) normal.

Use the following to answer question 5:

## Table: Producer Surplus

| Student | Willingness to Sell |
| :--- | :---: |
| Tim | $\$ 1$ |
| Laura | 30 |
| Whitney | 50 |
| Ralph | 100 |
| Rick | 150 |

5. (Table: Producer Surplus and Phantom Tickets) Given the information in the table, if these students can sell their Phantom tickets for only $\$ 5$, then:
A) Tim will be the only student not to sell his ticket.
B) Laura, Whitney, Ralph, and Rick will sell their tickets.
C) the total producer surplus for the five students will be $\$ 4$.
D) the total producer surplus for the five students will be $\$ 330$.
6. Adie wants to take some online classes this semester. She is willing to pay $\$ 1,000$ for the first class, $\$ 800$ for the second, $\$ 700$ for the third, and $\$ 500$ for the fourth. If online classes cost $\$ 750$, Adie will take $\qquad$ online classes and her consumer surplus will equal $\qquad$ _.
A) $3 ; \$ 350$
B) $4 ; \$ 600$
C) $2 ; \$ 400$
D) $2 ; \$ 300$
7. If a university decreases the price of tickets to football games to collect more revenue, it is assuming that the demand for tickets is:
A) unstable.
B) price-inelastic.
C) price-elastic.
D) price unit-elastic.
8. A rancher in Oklahoma decides to raise the price of her beef by $19 \%$ over the prevailing market price . If the demand for beef is perfectly elastic, this rancher's quantity demanded will:
A) fall.
B) not change.
C) fall slightly.
D) increase slightly.
9. A group of dairy farmers are trying to raise milk prices by $10 \%$. If the price elasticity of demand for milk is 0.75 , and the price elasticity of supply for milk is 0 , then by how much should farmers reduce their milk production to obtain the $10 \%$ increase?
A) $10 \%$
B) $7.5 \%$
C) $15 \%$
D) $13 \%$
10. A local restaurant has estimated that the price elasticity of demand for meals is equal to 2. If the restaurant increases menu prices by $5 \%$, it can expect the number of customers to decrease by $\qquad$ and total revenue to $\qquad$ _.
A) $10 \%$; increase
B) $5 \%$; stay constant
C) $10 \%$; fall
D) $2.5 \%$; fall

Use the following to answer question 11:

## Figure: Gains from Trade


11. (Figure: Gains from Trade) If the government imposes a tax of $\$ 3$ in this market, the deadweight loss will equal:
A) $\$ 0$.
B) $\$ 22.50$.
C) $\$ 26.25$.
D) $\$ 52.50$.

Use the following to answer question 12:

## Figure: Demand Curves


(A)

(B)

(C)

(D)
12. (Figure: Demand Curves) Which graph shows a perfectly inelastic demand curve?
A) A
B) B
C) C
D) D
13. The income elasticity of demand for eggs has been estimated to be 0.57 . If income grows by $5 \%$ in a period, how will that affect demand for eggs in that period, all other things unchanged?
A) Demand will increase by more than $5.7 \%$.
B) Demand will increase by about $2.9 \%$.
C) Demand will decrease by more than $5.7 \%$.
D) Demand will decrease by about $2.9 \%$.

## Bonus Question (10 Points):

Who was awarded the Nobel Prize in Economics at 2013 ?

Use the following to answer question 14 :
Figure: Market Demand

14. (Figure: Market Demand) The amount by which the total benefits to consumers exceed their total expenditure is called $\qquad$ and is depicted at quantity $E$ by the area
A) producer surplus; $B C D$
B) consumer surplus; $O C D E$
C) consumer surplus; $B C D$
D) net benefit; $O B D E$
15. If there is an increase in supply, total surplus:
A) will increase.
B) will decrease.
C) will remain the same.
D) may change, but we can't tell how.
16. Producer surplus for an individual seller is equal to:
A) the price of the good, minus the marginal cost of producing the good.
B) the cost of the good, minus the willingness to pay for the good.
C) the willingness to pay for the good, minus the price of the good.
D) the cost of the good, minus the price of the good.

Use the following to answer question 17:

## Figure: Monthly Supply of Bread


17. (Figure: Monthly Supply of Bread) The graph represents the monthly supply of bread at a local bakery. At the current price of $\$ 3$ per loaf of bread, the bakery sells 120 loaves of bread per month. The producer surplus received by this bakery is equal to:
A) $\$ 120$.
B) $\$ 60$.
C) $\$ 360$.
D) $\$ 180$.

Use the following to answer question 18:
Figure: Consumer Surplus

18. (Figure: Consumer Surplus) In the figure, total consumer surplus is $\qquad$ when the price is $\$ 10$.
A) $\$ 50$
B) $\$ 59$
C) $\$ 124$
D) $\$ 144$

Use the following to answer question 19:
Figure: Market for Sandwiches

19. (Figure: Market for Sandwiches) Referring again to the market for sandwiches during the lunch hour at a local deli, how much total surplus would be lost if a quota dictated that only eight sandwiches could be legally exchanged at a price of $\$ 5$ ?
A) $\$ 3$
B) $\$ 72$
C) $\$ 27$
D) $\$ 32$
20. If total surplus falls, which of the following must have occurred?
A) There was an increase in demand or a decrease in supply.
B) There was an increase in demand and an increase in supply.
C) There was a decrease in demand or a decrease in supply.
D) There was a decrease in demand and an increase in supply.
21. Which of the following is true about the price elasticity of demand?
A) When demand is perfectly inelastic, a rise in price leads to a decrease in total revenue.
B) When demand is perfectly elastic, a rise in price leads to an increase in total revenue.
C) When demand is inelastic, a rise in price leads to an increase in total revenue.
D) When demand is elastic, a decrease in price leads to a decrease in total revenue.
22. If total surplus rises, which of the following must have occurred?
A) There was an increase in demand and a decrease in supply.
B) There was an increase in demand or an increase in supply.
C) There was a decrease in demand and a decrease in supply.
D) There was a decrease in demand or an increase in supply.
23. The absolute value of the price elasticity of demand for soft drinks has been estimated to be 0.55 . If the government enacts a major increase in the tax on imported sugar (a major ingredient in soft drink manufacture), how will that affect total expenditures on soft drinks, all other things equal? (Hint: Consider the change in soft drink prices.)
A) Total expenditures will remain unchanged.
B) Total expenditures will fall.
C) Total expenditures will rise.
D) People will buy Pepsi instead of Coke.
24. The price elasticity of demand can be found by:
A) examining only the slope of the demand curve.
B) measuring absolute changes in price and quantity demanded.
C) comparing the percentage change in quantity demanded to the percentage change in price.
D) knowing that when price changes, the quantity demanded goes in the opposite direction.
25. If the government imposes a price floor in the market for grapefruit, total surplus:
A) will increase.
B) will decrease.
C) will not change.
D) may change, but we cannot determine the change without more information.
26. Maria wants to get rid of her bookshelf. She is willing to give it away for free but her neighbor offers to pay $\$ 30$ for it. Maria experiences a:
A) gain of consumer surplus.
B) loss of consumer surplus.
C) gain of producer surplus.
D) loss of producer surplus.

Use the following to answer question 27:
Figure: Producer Surplus

27. (Figure: Producer Surplus) When the price falls from $\$ 45$ to $\$ 35$, producer surplus ____ for a total producer surplus of $\qquad$ .
A) increases by $\$ 10 ; \$ 140$
B) decreases by $\$ 40 ; \$ 60$
C) increases by $\$ 35 ; \$ 180$
D) decreases by $\$ 10 ; \$ 140$
28. Mountain River Adventures offers white water rafting trips down the Colorado River. It costs the firm $\$ 100$ for the first raft trip per day, $\$ 120$ for the second, $\$ 140$ for the third, and $\$ 160$ for the fourth. If the market price for a raft trip is $\$ 150$, Mountain River Adventures will offer $\qquad$ trips per day and will have producer surplus equal to
$\qquad$ -
A) $3 ; \$ 90$
B) $3 ; \$ 10$
C) $2 ; \$ 220$
D) $4 ; \$ 80$
29. All except one of the following are characteristics of perfect competition. Which is the exception?
A) All firms produce the same standardized product.
B) There are many producers and each has only a small market share.
C) There are many producers; one firm has a $25 \%$ market share, and all the remaining firms have a market share of less than $2 \%$ each.
D) There are no obstacles to entry into or exit from the industry.
30. There is no total revenue test for price elasticity of supply because:
A) price and quantity supplied are inversely related.
B) price and quantity supplied are usually positively related.
C) total revenue will not usually change in the direction of a supply price change.
D) price and quantity supplied are always positively related.

## Question (10 points):

## Determine the amount of producer surplus generated in each of the following situations. Explain your answer.

a. ( $\mathbf{3}$ points) Gordon lists his old Lionel electric trains on eBay. He sets a minimum acceptable price, known as his reserve price, of $\$ 75$. After five days of bidding, the final high bid is exactly $\$ 75$. He accepts the bid.
b. (3 points) So-Hee advertises her car for sale in the used - car section of the student newspaper for $\$ 2,000$, but she is willing to sell the car for any price higher than $\$ 1,500$. The best offer she gets is $\$ 1,200$, which she declines.
c. (4 points) Sanjay likes his job so much that he would be willing to do it for free. However, his annual salary is $\$ 80,000$.

## Answer:

