## Where Does the Price of Pizza Come From?

Name: $\qquad$ Date: $\qquad$

## PART I: Data for Sellers and Buyers

Pizzaville is a typical American town where people enjoy pizza nearly as much as students in this class do. Today, we will examine prices for large, two-topping pizzas. You will work with two sets of data on this worksheet, one representing Pizzaville sellers and the other, Pizzaville buyers. Table A contains the data for pizza sellers and Table B contains data for pizza buyers.

Directions: Work with a partner to plot the information from Table A on the Seller's Graph and Table B on the Buyer's Graph. Answer the questions that follow.


## Seller's Graph

Table A

| Price of <br> Pizza | Number of <br> Pizzas |
| :---: | :---: |
| $\$ 18$ | 4,500 |
| $\$ 16$ | 4,000 |
| $\$ 14$ | 3,500 |
| $\$ 12$ | 3,000 |
| $\$ 10$ | 2,500 |
| $\$ 8$ | 2,000 |
| $\$ 6$ | 1,500 |
| $\$ 4$ | 1,000 |
| $\$ 2$ | 500 |

1. Using the chart, plot the points from Table A on the Seller's Graph. Connect the points to form a line. Write the equation for the line in the space below.
2. What is the relationship between price and the number of pizzas sellers desire to sell?

Table B

| Price of <br> Pizza | Number of <br> Pizzas |
| :---: | :---: |
| $\$ 18$ | 500 |
| $\$ 16$ | 1,000 |
| $\$ 14$ | 1,500 |
| $\$ 12$ | 2,000 |
| $\$ 10$ | 2,500 |
| $\$ 8$ | 3,000 |
| $\$ 6$ | 3,500 |
| $\$ 4$ | 4,000 |
| $\$ 2$ | 4,500 |

Buyer's Graph


1. Using the chart above, plot the points from Table B. Connect the points to form a line. Write the equation for the line in the space provided.
2. What group of people are represented by the Table A data?
3. What group of people are represented by the Table B data?

## Part II: Compare and Contrast

Compare and contrast the Seller's Graph (data from Table A) with the Buyer's Graph (data from Table B). Complete questions 1-4 in the table below for both the Seller's Graph and the Buyer's Graph. Put your answers in the appropriate box. Then use the sections on the far right to make notes about the similarities and differences between the graphs in terms of their characteristics. Your goal in completing this chart is to determine what the slope for the Seller's and Buyer's lines have in common and how they are different.

| Items to be Compared |  |  |  |
| :---: | :---: | :---: | :---: |
| Characteristics | \#1 Seller's Graph | \#2 Buyer's Graph | Compare and Contrast |
| 1. What is the slope <br> of the line? |  |  |  |
| 2. What is the y- <br> intercept? |  |  |  |
| 3. At what price are <br> buyers/sellers willing <br> to buy/sell the most? |  |  |  |
| 4. What can be said <br> about the price of <br> pizza and the number <br> of pizzas people are <br> willing to sell or buy? |  |  |  |

1. Write a summary statement of what you have learned about buyers and sellers in the market for pizzas in Pizzaville.

Part III: The Market Price of Pizza

Our original question today asked where the price of pizza came from, and the answer to that question involves both the buyers and sellers of pizza. When buyers and sellers come together and exchange goods and services, we call that interaction a market. In Pizzaville we have buyers and sellers exchanging pizzas, so we have a market. Can you find the market price for a large, two-topping pizza in Pizzaville? Solve the mystery of where pizza prices came from by combining your graphs of Table A and Table B. Use the graph below to plot the points from Table A and Table B.

Market Price Of Pizza


NUMBER OF PIZZAS

1. The market price of pizza comes from the intersection of your buyer and seller graphs. At what price do these two graphs intersect? $\qquad$
2. Three important vocabulary words are shown on this graph: supply, demand, and equilibrium. Write "supply" next to the upward sloping Seller's line because that line represents how much and at what price sellers will supply pizzas to the town of Pizzaville. Write "demand" next to the downward sloping Buyer's line because that line represents how much and at what price buyers are willing to buy pizzas. Finally, write "equilibrium" next to the intersection of the Supply and Demand lines because where the two lines cross is where the price and quantity between buyers and sellers is equal. Equilibrium, where the two lines intersect, is where the price of pizza comes from!
3. Write a summary statement about the intersecting lines in the graph above using the words supply, demand, equilibrium, and price.

