

## VISUAL 5.1 ▲ Cell Phone Service Providers

### By Period

Period 1	Period 2	Period 3	Period 4
Provider: <b>Blue Sky</b> Price-\$150 per month Includes 100 minutes of airtime Price of phone-\$300 No Additional Services Provided	Provider: <b>All-Talk</b> Price-\$125 per month Includes 150 minutes of airtime Price of phone-\$200 Price of Voice Mail: \$10 per month	Provider: <b>Com-Quest</b> Price-\$100 per month Includes 250 minutes of airtime Price of phone-\$100 Price of Voice Mail: \$5 per month	Provider: <b>Max-Chat</b> Price-\$75 per month Includes 300 minutes of airtime Free Phone Free Voice Mail Free Call Waiting
	Provider: <b>Blue Sky</b> Price-\$125 per month Includes 100 minutes of airtime Price of phone-\$200 Price of Voice Mail: \$15 per month	Provider: <b>All-Talk</b> Price-\$100 per month Includes 200 minutes of airtime Price of phone-\$100 Price of Voice Mail: \$5 per month	Provider: <b>Com-Quest</b> Price-\$75 per month Includes 250 minutes of airtime Price of phone-\$50 Free Voice-Mail
		Provider: <b>Blue Sky</b> Price-\$100 per month Includes 160 minutes of airtime Price of phone-\$100 Price of Voice Mail: \$5 per month	Provider: <b>All-Talk</b> Price-\$50 per month Includes 200 minutes of airtime Free Phone Price of Voice Mail: \$5 per month
			Provider: <b>Blue Sky</b> Price-\$45 per month Includes 150 minutes of airtime Price of phone-\$30 Price of Voice Mail: \$10 per month

## VISUAL 5.2 ▲ Answers to Activity 5.1

The information contained in Activity 5.1 represents the market for cell phones in the town of Henley. The data is organized by periods. Each period represents an equal length of time. A cell phone service provider is a firm that offers cell phones, airtime, and additional services. The purchase of a cell phone represents a one-time-only charge when a customer signs on with a provider. Other services are packaged and sold for a monthly fee. With a partner, answer the questions below.

1. How many periods are listed on Handout 5.1? **4**
2. Write the names of each provider in the space provided below.
  - a. **Blue Sky**
  - b. **All-Talk**
  - c. **Com-Quest**
  - d. **Max-Chat**
3. In which period did **All-Talk** begin offering a cell phone package in Henley? **Period 2**
4. Which provider has offered a cell phone package in each of the four periods? **Blue Sky**
5. Which provider was the last to enter the cell phone market in Henley? **Max-Chat**

You and your partner will now compare the rates and services offered by the cell phone providers for each time period. Your comparison will be based on the price of a phone, the price of airtime, and the additional services offered by each firm.

6. For Period 1, calculate the price per minute of airtime using the proportion below:

Period 1	
$\$150/100 \text{ minutes} = \$X/1\text{minute}$	
<b>Blue Sky</b>	Price per Minute = <b>\$1.50</b>

7. In Period 2, we see that a new firm has entered the market. Using two proportions, calculate the price per minute of airtime for both firms and record below.

Period 2	
<b>All-Talk</b>	Price per Minute = <b>\$.83</b>
<b>Blue Sky</b>	Price per Minute = <b>\$1.25</b>

Which firm has the lowest rate? **All-Talk**

## VISUAL 5.2 (continued)

8. In Period 3, we see that another new firm has entered the market. Using proportions, calculate the price per minute of airtime for all three firms and record below.

Period 3	
<b>Com-Quest</b>	Price per Minute = \$.40
<b>All-Talk</b>	Price per Minute = \$.50
<b>Blue Sky</b>	Price per Minute = \$.625

Which firm has the lowest rate? **Com-Quest**

9. In Period 4, there are a total of four firms in the cell phone market. Using proportions, calculate the price per minute of airtime for all four firms and record below.

Period 4	
<b>Max-Chat</b>	Price per Minute = \$.25
<b>Com-Quest</b>	Price per Minute = \$.30
<b>All-Talk</b>	Price per Minute = \$.25
<b>Blue Sky</b>	Price per Minute = \$.30

Which firm has the lowest rate? **Max-Chat and All-Talk**

10. Each firm requires new customers to purchase a phone when signing up for cell phone service. Using the chart below, calculate the average price of a cell phone for each of the four periods.

Average Price of a Cell Phone in Periods 1-4	
Period 1	Average Price = \$300
Period 2	Average Price = \$200
Period 3	Average Price = \$100
Period 4	Average Price = \$20

11. Describe the change in the price of a cell phone over time. **It decreased.**

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## VISUAL 5.2 (continued)

12. Each firm in the Henley cell phone market also began offering voice mail service to its customers. Using the chart below, calculate the average price for voice mail service for each of the four periods.

Average Price of Voice Mail Service in Periods 1-4	
Period 1	Average Price = Not available
Period 2	Average Price = \$12.50
Period 3	Average Price = \$5.00
Period 4	Average Price = \$3.75

13. Describe the change in price for voice mail service over time. The price for voice-mail was reduced over time.

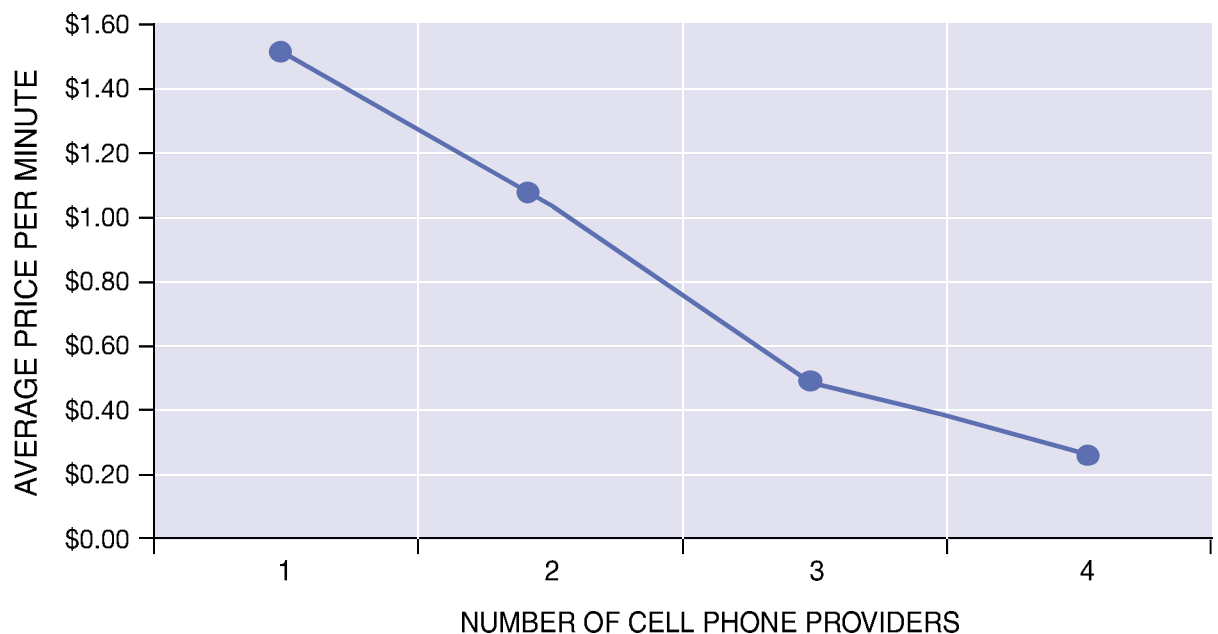
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## VISUAL 5.3 ▲ Answers to Activity 5.2

- Using the information you calculated in Activity 5.1, complete the chart below:

Period	Number of Providers	Average Price per Minute of Airtime
1	1	\$ 1.50
2	2	\$1.04
3	3	\$.51
4	4	\$.28

- Using the summary information from the chart above, graph, as ordered pairs, Number of Cell Phone Providers on the horizontal axis and Average Price per Minute on the vertical axis.



- Describe the relationship between average price per minute of airtime and the number of cell phone service providers.

As the number of providers increased, the average price per minute of airtime decreased; an inverse relationship exists between number of providers and average price per minute of airtime.

- How has competition between providers affected the price of using a cell phone?

The price that people pay to use a cell phone, buy a cell phone and the use of voice-mail, were all reduced.

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## VISUAL 5.3 (continued)

5. What could you predict will happen to the prices of cell phone services in Period 5?

Prices could continue to decrease as providers compete for customers. If additional providers enter the market, prices will continue to fall.

6. How does competition benefit people?

Competition in the market for cell phones added services and reduced prices for people using cell phones.