

### Decision Making

Alyshia and Tamara went to the Neighborhood Cafe for lunch. They each chose one of the lunch specials, a beverage, and a dessert from the list printed on the menu board.

Lunch Specials		Desserts	
Lettuce Salad	\$5.25	Carrot Cake	\$1.50
Nature Salad	\$4.75	Apple Pie	\$2.25
Club Sandwich	\$4.75		
Mushroom Burger	\$4.50	Beverages	
Vegetable Burger	\$3.75	Orange Juice	\$1.25
		Bottled Water	\$1.00

1. Tamara has \$7 to spend for lunch. If she wants a special, a beverage, and a dessert, what items could she choose for her lunch?

---

---

---

---

2. Alyshia has \$10 to spend for lunch. If she wants a special, a beverage, and a dessert, what items could she choose for her lunch?

---

---

3. Together, Tamara and Alyshia have \$17. They want to leave a \$3 tip for the waitress. How will this affect what they can order? How will each girl's order change from the selections above?

---

---

---

4. Eight students are going to the Neighborhood Cafe to celebrate the end of the semester. Each student orders a lunch special, a beverage, and a dessert. About how much will the eight lunches cost? How did you decide on that amount?

---

---

---

# Puzzle 1-7

## Adding and Subtracting Decimals

Find each sum and difference. Then put the letter above its value to answer the question at the bottom of the page.

- |                     |           |                   |           |
|---------------------|-----------|-------------------|-----------|
| $0.7 + 3.8$         | A = _____ | $6.25 - 3.07$     | N = _____ |
| $7.023 + 0.63$      | B = _____ | $4.61 + 5 + 3.18$ | O = _____ |
| $0.365 + 3.25 + 4$  | C = _____ | $0.7 - 0.321$     | P = _____ |
| $5.3 + 0.533$       | D = _____ | $7 - 0.38$        | R = _____ |
| $6 + 12.328 + 4.25$ | E = _____ | $6.43 - 2.79$     | S = _____ |
| $0.44 + 2.22 + 4.1$ | F = _____ | $9 - 3.25$        | T = _____ |
| $7.32 + 4.1$        | H = _____ | $3.8 - 2.63$      | U = _____ |
| $9.4 + 3.28 + 0.1$  | I = _____ | $71 - 41.3$       | V = _____ |
| $3.7 + 4.31$        | L = _____ | $9.45 - 0.29$     | W = _____ |
| $37.2 - 4.6$        | M = _____ | $6.15 - 4.93$     | Y = _____ |

Why is it so easy to weigh fish?

$\overline{7.653}$	$\overline{22.578}$	$\overline{7.615}$	$\overline{4.5}$	$\overline{1.17}$	$\overline{3.64}$	$\overline{22.578}$		
$\overline{5.75}$	$\overline{11.42}$	$\overline{22.578}$	$\overline{1.22}$		$\overline{11.42}$	$\overline{4.5}$	$\overline{29.7}$	$\overline{22.578}$
$\overline{5.75}$	$\overline{11.42}$	$\overline{22.578}$	$\overline{12.78}$	$\overline{6.62}$		$\overline{12.79}$	$\overline{9.16}$	$\overline{3.18}$
$\overline{3.64}$	$\overline{7.615}$	$\overline{4.5}$	$\overline{8.01}$	$\overline{22.578}$	$\overline{3.64}$			

All rights reserved.

© Pearson Education, Inc., publishing as Pearson Prentice Hall.

# Practice 1-8

## Multiplying Decimals

Place the decimal point in each product.

1.  $4.3 \times 2.9 = 1247$   
\_\_\_\_\_

2.  $0.279 \times 53 = 14787$   
\_\_\_\_\_

3.  $4.09 \times 3.96 = 161964$   
\_\_\_\_\_

4.  $5.90 \times 6.3 = 3717$   
\_\_\_\_\_

5.  $0.74 \times 83 = 6142$   
\_\_\_\_\_

6.  $2.06 \times 15.9 = 32754$   
\_\_\_\_\_

Find each product.

7.  $43.59 \times 0.1$   
\_\_\_\_\_

8.  $246 \times 0.01$   
\_\_\_\_\_

9.  $5.342$   
 $\times 13$   
\_\_\_\_\_

10.  $0.19$   
 $\times 0.05$   
\_\_\_\_\_

11.  $240$   
 $\times 0.02$   
\_\_\_\_\_

12.  $43.79$   
 $\times 42$   
\_\_\_\_\_

Write a multiplication statement you could use for each situation.

13. A pen costs \$.59. How much would a dozen pens cost?  
\_\_\_\_\_

14. A mint costs \$.02. How much would a roll of 10 mints cost?  
\_\_\_\_\_

15. An orange costs \$.09. How much would 2 dozen oranges cost?  
\_\_\_\_\_

Find each product. Tell whether you would use mental math, paper and pencil, or a calculator.

16.  $19(0.35)$   
\_\_\_\_\_  
\_\_\_\_\_

17.  $30 \times 0.1$   
\_\_\_\_\_  
\_\_\_\_\_

18.  $22.62 \times 1.08$   
\_\_\_\_\_  
\_\_\_\_\_

All rights reserved.

© Pearson Education, Inc., publishing as Pearson Prentice Hall.

# Practice 2-1

## Finding the Mean

Find the mean of each data set.

1. 4, 5, 7, 5, 6, 3

\_\_\_\_\_

2. 72, 76, 73, 74, 75

\_\_\_\_\_

3. 85, 91, 76, 85, 93

\_\_\_\_\_

4. 2.1, 3.2, 1.6, 2.4

\_\_\_\_\_

For each set of data, identify any outliers. Then determine the effect that the outlier has on the mean.

5. 64, 65, 62, 69, 59, 23, 61, 67 \_\_\_\_\_

6. 8.1, 8.3, 7.8, 7.9, 8.4, 6.8, 8.0 \_\_\_\_\_

7. 1230, 1225, 1228, 1232, 1233, 1321, 1229, 1231 \_\_\_\_\_

Use the table for Exercises 8-10.

Name	Hourly Wage
Julia	\$8.75
Ron	\$7.50
Miguel	\$25.00
Natasha	\$11.00
Robert	\$10.50

8. Whose wage is an outlier in the data set?

\_\_\_\_\_

9. Find the mean hourly wage with and without the outlier.

\_\_\_\_\_

10. What effect does the outlier have on the mean?

\_\_\_\_\_

Fill in the blanks to find the mean of each data set.

11. 4, 6, 2, 8, 5:  $\frac{25}{\square} = \square$

12. 10, 4, 2, 12, 6, 8:  $\frac{\square}{6} = \square$

## Prime Factors (A)

Use a tree diagram to find the prime factors of each number.

90

28

121

115

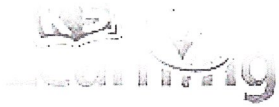
70

90

30

130

24



## Writing numbers in expanded form

---

### Grade 6 Place Value Worksheet

Write each number in expanded form.

1. 7,010,181

---

2. 208,058,488

---

---

3. 232,913,805

---

---

4. 2,711,783

---

---

5. 7,389

---

6. 6,541,775

---

---

7. 7,845,822

---

---

8. 429,772,692

---

---

---

9. 79,905

---

10. 80,621

---



## Division (I)

Find each quotient.

$$8 \overline{)7312}$$

$$1 \overline{)371}$$

$$1 \overline{)284}$$

$$8 \overline{)7168}$$

$$1 \overline{)678}$$

$$2 \overline{)1268}$$

$$2 \overline{)1714}$$

$$4 \overline{)2940}$$

$$2 \overline{)474}$$

$$9 \overline{)7011}$$

$$6 \overline{)3906}$$

$$2 \overline{)1194}$$

$$6 \overline{)4656}$$

$$7 \overline{)5327}$$

$$8 \overline{)1376}$$





## Subtraction Facts to 18 (I)

Calculate each difference.

5	4	13	5	15	9	7	11	4	3
<u>-3</u>	<u>-3</u>	<u>-6</u>	<u>-0</u>	<u>-9</u>	<u>-7</u>	<u>-2</u>	<u>-6</u>	<u>-1</u>	<u>-1</u>

7	12	11	3	11	0	6	15	16	10
<u>-0</u>	<u>-8</u>	<u>-5</u>	<u>-3</u>	<u>-3</u>	<u>-0</u>	<u>-5</u>	<u>-7</u>	<u>-8</u>	<u>-3</u>

6	10	10	11	13	14	10	5	3	14
<u>-3</u>	<u>-5</u>	<u>-1</u>	<u>-8</u>	<u>-8</u>	<u>-6</u>	<u>-7</u>	<u>-2</u>	<u>-0</u>	<u>-9</u>

10	9	7	16	12	7	6	13	6	4
<u>-2</u>	<u>-8</u>	<u>-5</u>	<u>-9</u>	<u>-6</u>	<u>-7</u>	<u>-6</u>	<u>-7</u>	<u>-4</u>	<u>-4</u>

11	6	8	11	14	13	8	4	9	9
<u>-4</u>	<u>-1</u>	<u>-0</u>	<u>-9</u>	<u>-7</u>	<u>-9</u>	<u>-4</u>	<u>-0</u>	<u>-2</u>	<u>-6</u>

12	3	15	17	2	9	14	8	8	18
<u>-5</u>	<u>-2</u>	<u>-8</u>	<u>-9</u>	<u>-1</u>	<u>-9</u>	<u>-5</u>	<u>-6</u>	<u>-2</u>	<u>-9</u>

1	9	4	5	13	10	6	11	12	8
<u>-1</u>	<u>-1</u>	<u>-2</u>	<u>-5</u>	<u>-5</u>	<u>-4</u>	<u>-2</u>	<u>-7</u>	<u>-9</u>	<u>-1</u>

7	11	8	8	12	6	15	9	12	1
<u>-1</u>	<u>-2</u>	<u>-7</u>	<u>-5</u>	<u>-3</u>	<u>-0</u>	<u>-6</u>	<u>-0</u>	<u>-7</u>	<u>-0</u>

14	2	7	7	8	17	2	10	16	9
<u>-8</u>	<u>-2</u>	<u>-4</u>	<u>-3</u>	<u>-3</u>	<u>-8</u>	<u>-0</u>	<u>-8</u>	<u>-7</u>	<u>-4</u>

9	8	12	5	10	7	10	5	13	9
<u>-5</u>	<u>-8</u>	<u>-4</u>	<u>-1</u>	<u>-6</u>	<u>-6</u>	<u>-9</u>	<u>-4</u>	<u>-4</u>	<u>-3</u>

Skills Worksheet

# Section Review

## Asking About Life

### USING KEY TERMS

1. In your own words, write a definition for the term *life science*.

\_\_\_\_\_

### UNDERSTANDING KEY IDEAS

- \_\_\_\_\_ 2. Life scientists may study any of the following EXCEPT
- a. things that were once living.
  - b. environmental problems.
  - c. stars in outer space.
  - d. diseases that are not inherited by humans.

3. What is the importance of asking questions in life science?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Where do life scientists work? What do life scientists study?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### MATH SKILLS

5. Students in a science class collected 50 frogs from a pond and found that 15 of these frogs had deformities. What percentage of the frogs had deformities? Show your work below.

**Section Review** *continued*

**CRITICAL THINKING**

**6. Identifying Relationships** Make a list of five things you do or deal with daily. Give an example of how life science might relate to each of these things.

---

---

---

---

---

---

---

---

---

---

---

---

**7. Applying Concepts** Look at Figure 5. Propose five questions about what you see. Share one of your questions with your classmates.

---

---

---

---

---

---

---

---

---

---

---

---

Skills Worksheet

# Section Review

## Scientific Methods

### USING KEY TERMS

1. Use the following terms in the same sentence: *hypothesis*, *controlled experiment*, and *variable*.

---

---

---

### UNDERSTANDING KEY IDEAS

2. The steps of scientific methods
- a. are exactly the same in every investigation.
  - b. must always be used in the same order.
  - c. are not always used in the same order.
  - d. always end with a conclusion.
3. What are the essential parts of a controlled experiment?

---

---

4. What causes scientific knowledge to change?

---

---

### MATH SKILLS

5. Calculate the average of the following values: 4, 5, 6, 6, 9. Show your work below.

**Section Review** *continued*

**CRITICAL THINKING**

**6. Analyzing Methods** Why was UV light chosen to be the variable in the frog experiment?

---

---

---

---

**7. Analyzing Processes** Why are there many ways to follow the steps of scientific methods?

---

---

---

---

**8. Making Inferences** Why might two scientists working on the same problem draw different conclusions?

---

---

---

---

**9. Identifying Bias** Investigations often begin with observation. How does observation limit what scientists can study?

---

---

---

---

**Section Review** *continued***INTERPRETING GRAPHICS**

10. The table below shows how long it takes for one bacterium to divide and become two bacteria. Plot this information on a graph, with temperature on the x-axis and the time to double on the y-axis. Do not graph values for which there is no growth. What temperature allows the bacteria to multiply most quickly?

Temperature (°C)	Time to double (minutes)
10	130
20	60
25	40
30	29
37	17
40	19
45	32
50	no growth