

# 1.28

## Word Problem Using Long Division

### • Example 1

Six people estimate that the car expenses for a short trip will be \$54. What will be the amount of each person's share?

Division is the necessary operation for the solution.

**Solution** The needed information from the problem is the total expense, \$54, and the number of people sharing that expense, here six.

To solve the problem, think, "If the total expense is \$54, we must divide that expense into six equal parts." Write

$$54 \div 6 = 9$$

Each person's share is \$9.

### ● ● ● CHECK YOURSELF 1

There are 56 students going on a field trip. If each van holds 8 students, how many vans will be needed for the field trip?

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### ● ● ● CHECK YOURSELF ANSWER

1. 7 vans.

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# 1.28 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

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Solve the following applications.

**1. Education.** There are 60 pupils in a school. There are 15 students in each classroom. How many classrooms are there?

**2. Cost.** A customer pays \$81 for 9 calculators. How much does each calculator cost?

**3. Counting.** Ramon bought 56 bags of candy. There were 8 bags in each box. How many boxes were there?

**4. Capacity.** There are 32 students who are taking a field trip. If each car can hold 4 students, how many cars will be needed for the field trip?

**5. Packaging.** There are 63 candy bars in 7 boxes. How many candy bars are in each box?

**6. Business.** A total of 54 printers were shipped to 9 stores. How many printers were shipped to each store?

**7. Leisure.** Elsie plans to travel 1824 miles on her vacation. If she plans to be away for 8 days, how many miles will she travel each day if she travels the same distance each day?

**8. Financial grants.** A college awards \$5831 in grants to 7 faculty members. How much does each faculty member receive if each receives the same amount?

9. **Baking.** Sarah has baked 196 cupcakes. She wants to put them into boxes that contain 6 cupcakes each. How many boxes will Sarah need? How many cupcakes will be left over?
10. **Distribution.** Lou had 139 cookies to distribute equally among 9 boys. How many cookies did each boy receive? How many cookies were left over for Lou?
11. **Business.** The homeowners along a street must share equally the \$2030 cost of new street lighting. If there are 14 homes, what amount will each owner pay?
12. **Cost.** A bookstore ordered 325 copies of a textbook at a cost of \$7800. What was the cost to the store for an individual textbook?
13. **Television costs.** A television dealer purchased 23 sets, each the same model, for \$5267. What was the cost of each set?
14. **Computers.** A computer printer can print 340 lines per minute. How long, in minutes, will it take to complete a report of 10,880 lines?
15. **Distance.** A train traveled 1364 mi in 22 h. What was the speed, in miles per hour, of the train? *Hint:* Speed is the distance traveled divided by the time.
16. **Bonuses.** A company distributes \$16,488 in year-end bonuses. If each of the 36 employees receives the same amount, what bonus will each receive?

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