



# Multiplication of a 3-Digit Number by a 2-Digit Number with Carrying

## • Example 1

Multiply  $56 \times 673$ .

**Step 1** 
$$\begin{array}{r} 673 \\ \times 56 \\ \hline \end{array}$$
 Write the product as shown.

**Step 2** 
$$\begin{array}{r} 41 \\ 673 \\ \times 56 \\ \hline 4038 \end{array}$$
 Multiply  $6 \times 673$  for the first partial product. We must carry to the tens and hundreds columns.

**Note:** This places 5 below 3, the *tens* digit of the first partial product.

**Step 3** 
$$\begin{array}{r} 31 \\ 41 \\ 673 \\ \times 56 \\ \hline 4038 \\ 3365 \end{array}$$
 Multiply 5 tens  $\times 673$  for the second partial product. We shift the product one place left to show the multiplication by 5 tens.

**Step 4** 
$$\begin{array}{r} 31 \\ 41 \\ 673 \\ \times 56 \\ \hline 4038 \\ 3365 \\ \hline 37,688 \end{array}$$
 We now add the partial products for our result.

In practice these steps are combined, and your work should look like that shown in step 4.

### ● ● ● CHECK YOURSELF 1

Multiply.

$$74 \times 538$$

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### ● ● ● CHECK YOURSELF ANSWER

1. 39,812.

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# 1.20 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_

Multiply.

$$\begin{array}{r} 1. \quad 235 \\ \times 49 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 327 \\ \times 59 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 587 \\ \times 47 \\ \hline \end{array}$$

4. Find the product of 708 and 29.      5. What is the product of 21 and 551?

Solve the following applications.

6. **Sales.** A college purchased 28 computers for a new laboratory at a cost of \$879 per computer. What was the total cost of the order?
7. **Copying.** A ream of paper consists of 500 sheets. If 29 reams of paper were used in a copy machine during 1 week, how many copies were made?
8. **Salary.** Margaret has a job that pays \$356 per week. What will she earn in 1 year? (Use 52 weeks per year.)
9. **Medicine.** A hospital has 46 bottles of aspirin and each bottle contains 275 tablets. How many tablets does the hospital have in all?
10. **Assembly cost.** A company pays its shop workers \$15 for every assembly. How much would be paid to a person who had 104 assemblies?
11. **Cost.** A school purchases 18 television sets for \$369 each. What is the cost of the order?
12. **Time.** How many hours are there in a 365-day year?
13. **Salary.** Shannon worked as a medical transcriptionist. She earned \$426 per week for 16 weeks. What was the total amount she earned?
14. **Baking.** Barry's Pretzels makes 276 soft pretzels per day. How many pretzels did Barry's make in September?
15. **Library Books.** Each of 16 classrooms in a school contains 250 books in its reference library. What is the total number of books in the reference libraries?