



SKILL 16: Multiplication by a 2-Digit Multiplier

Renaming can help you multiply whole numbers.

Example

Multiply: 52×185 . Think of 52 as $50 + 2$.

Multiply 2×185 .

$$\begin{array}{r} 11 \\ 185 \\ \times 52 \\ \hline 370 \end{array}$$

Multiply 50×185 .

$$\begin{array}{r} 42 \\ 11 \\ 185 \\ \times 52 \\ \hline 370 \\ 9250 \end{array}$$

↑ Write a 0.
Then multiply
 5×185 .

Add.

$$\begin{array}{r} 185 \\ \times 52 \\ \hline 370 \\ 9250 \\ \hline 9620 \end{array}$$

Estimate to check that your answer is reasonable: $50 \times 200 = 10,000$.

The product is reasonable. $52 \times 185 = 9,620$.

Guided Practice

Find each product.

1.
$$\begin{array}{r} 4 \\ 35 \\ \times 18 \\ \hline 280 \\ \square\square\square \\ \hline \square\square\square \end{array}$$

2.
$$\begin{array}{r} 1 \\ 37 \\ \times 25 \\ \hline 185 \\ \square\square\square \\ \hline \square\square\square \end{array}$$

3.
$$\begin{array}{r} \square \\ 87 \\ \times 41 \\ \hline 87 \\ \square\square\square\square \\ \hline \square,\square\square\square \end{array}$$

4.
$$\begin{array}{r} 1 \\ 331 \\ \times 24 \\ \hline \square\square\square\square \\ \square\square\square\square \\ \hline \square,\square\square\square \end{array}$$

5.
$$\begin{array}{r} \square\square \\ 1 \\ 1,246 \\ \times 32 \\ \hline 2492 \\ \square\square\square\square\square \\ \hline \square\square,\square\square\square \end{array}$$

6.
$$\begin{array}{r} \square\square \\ 2,174 \\ \times 13 \\ \hline \square\square\square\square \\ \square\square\square\square\square \\ \hline \square\square,\square\square\square \end{array}$$

SKILL 16: Practice

Find each product.

1.
$$\begin{array}{r} 66 \\ \times 29 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 95 \\ \times 56 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 73 \\ \times 45 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 83 \\ \times 77 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 115 \\ \times 39 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 324 \\ \times 19 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 565 \\ \times 24 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 683 \\ \times 37 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 333 \\ \times 99 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 309 \\ \times 24 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 4,021 \\ \times 37 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 375 \\ \times 58 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 2,341 \\ \times 53 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 436 \\ \times 87 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 2,463 \\ \times 24 \\ \hline \end{array}$$

16.
$$\begin{array}{r} 792 \\ \times 36 \\ \hline \end{array}$$

Solve.

17. Large trucks need 18 tires. How many tires would be needed for 93 trucks? _____

18. There are 24 hours in a day, and 31 days in the month of August. How many hours are in the month of August? _____



19. Find the product:
- 428×36
- .

Skill 16

A 3,852

C 15,068

B 8,844

D 15,408

20. Estimate the product:
- $3,701 \times 8$
- .

Skill 13

F 21,000

H 32,000

G 24,000

J 40,000