



SKILL 17: Multiplication by a 3-Digit Multiplier

You can write a 3-digit number in expanded form to help you multiply by a 3-digit multiplier.

Example

Multiply: 648×532 .

$\begin{array}{r} 532 \\ \times 648 \\ \hline 4256 \\ 21280 \\ 319200 \\ \hline 344,736 \end{array}$	Think: $648 = 600 + 40 + 8$ 8×532 40×532. Write a 0. Then multiply 4×532. 600×532. Write two 0s. Then multiply 6×532. Add the partial products to find the final answer.
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Estimate the product to see if that the answer is reasonable: $600 \times 500 = 300,000$.

Guided Practice

Find each product.

1.

$\begin{array}{r} 126 \\ \times 243 \\ \hline \square\square\square \\ \square\square\square\square \\ \square\square\square\square\square \\ \hline \square\square,\square\square\square \end{array}$	$\leftarrow 3 \times 126$ $\leftarrow 40 \times 126$ $\leftarrow 200 \times 126$
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2.

$\begin{array}{r} 328 \\ \times 415 \\ \hline \square\square\square\square \\ \square\square\square\square \\ \square\square\square\square\square\square \\ \hline \square\square\square,\square\square\square \end{array}$	$\leftarrow 5 \times 328$ $\leftarrow 10 \times 328$ $\leftarrow 400 \times 328$
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3.

$\begin{array}{r} 346 \\ \times 234 \\ \hline \square\square\square\square \\ \square\square\square\square\square \\ \square\square\square\square\square\square \\ \hline \square\square,\square\square\square \end{array}$

4.

$\begin{array}{r} 283 \\ \times 567 \\ \hline \square\square\square\square \\ \square\square\square\square\square \\ \square\square\square\square\square\square \\ \hline \square\square\square,\square\square\square \end{array}$
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5.

$\begin{array}{r} 617 \\ \times 345 \\ \hline \square\square\square\square \\ \square\square\square\square\square \\ \square\square\square\square\square\square \\ \hline \square\square\square,\square\square\square \end{array}$
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SKILL 17: Practice

Find each product.

1.
$$\begin{array}{r} 638 \\ \times 244 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 861 \\ \times 109 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 526 \\ \times 320 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 814 \\ \times 517 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 249 \\ \times 816 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 426 \\ \times 862 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 754 \\ \times 230 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 153 \\ \times 168 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 209 \\ \times 234 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 629 \\ \times 513 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 623 \\ \times 428 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 852 \\ \times 109 \\ \hline \end{array}$$

Solve.

13. A farmer is shipping 358 boxes of potatoes. Each box weighs 125 pounds. What is the total weight of the shipment?

14. A regular deck of cards has 52 cards. A carton contains 144 decks. How many cards are there in two full cartons?

TEST PREP

15. Find the product:
- 453×236
- .

Skill 17

A 4,983

C 105,808

B 13,077

D 106,908

16. Find the difference:
-
- $20,304 - 6,596$
- .

Skill 8

F 13,708

H 26,292

G 14,718

J 26,900