

Multiply Using the Standard Algorithm

Follow the steps to multiply. Line up the numbers by place value and work from right to left.

1

Set up the problem.

Write the numbers vertically. Line up the ones place, tens place, and hundreds place.

$$\begin{array}{r} 382 \\ \times 547 \\ \hline \end{array}$$

Keep the larger number on top. Line up the digits by place value.

2

Multiply the ones.

Multiply the bottom number's ones digit (7) by each digit in the top number. Write your answer on the first line.

$$\begin{array}{r} 382 \\ \times 547 \\ \hline 2,674 \end{array}$$

$7 \times 2 = 14$
write 4, carry 1
 $7 \times 8 = 56 + 1 = 57$
write 7, carry 5
 $7 \times 3 = 21 + 5 = 26$
write 26

3

Multiply the tens.

Multiply the bottom number's tens digit (4) by each digit in the top number. Start one space to the left (write a 0 in the ones place).

$$\begin{array}{r} 382 \\ \times 547 \\ \hline 2,674 \\ 1,5280 \end{array}$$

$4 \times 2 = 8$
write 8, carry 0
 $4 \times 8 = 32$
write 2, carry 3
 $4 \times 3 = 12 + 3 = 15$
write 15

4

Multiply the hundreds.

Multiply the bottom number's hundreds digit (5) by each digit in the top number. Start two spaces to the left (write two 0s in the ones and tens places).

$$\begin{array}{r} 382 \\ \times 547 \\ \hline 2,674 \\ 1,5280 \\ + 191,000 \end{array}$$

$5 \times 2 = 10$
write 0, carry 1
 $5 \times 8 = 40 + 1 = 41$
write 1, carry 4
 $5 \times 3 = 15 + 4 = 19$
write 19

5

Add the partial products.

Add the three lines to get the final answer.

$$\begin{array}{r} 382 \\ \times 547 \\ \hline 2,674 \\ 1,5280 \\ + 191,000 \\ \hline 208,954 \end{array}$$

6

Check your work.

- Does your answer make sense?
- Compare to your estimate.
- Make sure the digits are lined up.

Estimate:

$382 \approx 400$
 $547 \approx 500$
 $400 \times 500 = 200,000$

My answer 208,954 is close to 200,000, so it makes sense.

1.

$$382 \times 547 \approx \underline{\quad\quad\quad} \times \underline{\quad\quad\quad}$$

$$= \underline{\quad\quad\quad}$$

2.

$$473 \times 905 \approx \underline{\quad\quad\quad} \times \underline{\quad\quad\quad}$$

$$= \underline{\quad\quad\quad}$$

3.

$$638 \times 5,291 \approx \underline{\quad\quad\quad} \times \underline{\quad\quad\quad}$$

$$= \underline{\quad\quad\quad}$$

4.

$$7,418 \times 594 \approx \underline{\quad\quad\quad} \times \underline{\quad\quad\quad}$$

$$= \underline{\quad\quad\quad}$$
