

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, tens, and hundreds place.

	H	T	O
		8	2
x	5	4	7

2

Multiply the ones.

Multiply the bottom number's ones digit (7) by each digit in the top number.

	H	T	O
		8	2
x	5	4	7
		2	6
	2	6	7

$7 \times 2 = 14$
 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.

	H	T	O
		8	2
x	5	4	7
		2	6
	2	6	7
	1	5	2
	1	5	2

$4 \times 2 = 8$
 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.

	H	T	O
		8	2
x	5	4	7
		2	6
	2	6	7
	1	5	2
	1	5	2
	1	9	1

$5 \times 2 = 10$
 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.

	H	T	O
		8	2
x	5	4	7
		2	6
	2	6	7
	1	5	2
	1	5	2
	1	9	1
	2	0	8
	9	5	4

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.

$382 \times 547 \approx \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

2.

$473 \times 905 \approx \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

3.

$638 \times 5,291 \approx \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

4.

$7,418 \times 594 \approx \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$
