

Math online school

How to multiply a two-digit number by a one-digit number
(for example 23×3).

1. step

Place one number above the other so that the ones' place digits are lined up. Draw a line under the bottom number.

$$\begin{array}{r} 23 \\ 3 \\ \hline \end{array}$$

2. step

Multiply the two ones' place digits ($3 \times 3 = 9$) and place the nine below the line in the ones' place column.

$$\begin{array}{r} 23 \\ 3 \\ \hline 9 \end{array} =$$

3. step

Multiply the digit in the tens' place column (2) by the second number (3). Place the result (6) below the line in the tens' place column (to the left of the 9).

$$= \begin{array}{r} 23 \\ 3 \\ \hline 69 \end{array}$$

How to multiply a two-digit number by a one-digit number
(for example 46×7).

1. step

Place one number above the other so that the ones' place digits are lined up. Draw a line under the bottom number.

$$\begin{array}{r} 46 \\ 7 \\ \hline \end{array}$$

2. step

Multiply the two ones' place digits ($6 \times 7 = 42$). This number is larger than 9, so place the four above the tens' place column and place the two below the line in the ones' place column.

$$\begin{array}{r} 4 \\ 46 \\ 7 \\ \hline 2 \end{array} =$$

3. step

Multiply the digit in the tens' place column (4) by the second number (7). The result is $4 \times 7 = 28$.

Add the 4 to the 28 ($28 + 4 = 32$) and place the answer below the line and to the left of the 2.

$$= \begin{array}{r} + \\ \times \\ 46 \\ 7 \\ \hline 322 \end{array}$$

Math online school

How to multiply a three-digit number by a one-digit number (for example 323 x 3).

1. step

Multiply the two ones' place digits (2x3=6) and place the six below the line in the ones' place column.

$$\begin{array}{r} 312 \\ \times 3 \\ \hline 6 \end{array} =$$

2. step

Multiply the digit in the tens' place column (1) by the second number (3). Place the result (3) below the line in the tens' place column (to the left of the 6).

$$= \begin{array}{r} 312 \\ \times 3 \\ \hline 3 \end{array} = 36$$

3. step

Multiply the digit in the hundreds' place column (3) by the second number (3). Place the result (9) below the line in the hundreds' place column (to the left of the 3).

$$= \begin{array}{r} 312 \\ \times 3 \\ \hline 9 \end{array} = 936$$

How to multiply a three-digit number by a one-digit number (for example 456 x 3).

1. step

Multiply the two ones' place digits (6 x 3 = 18). This number is larger than 9, so place the one above the tens' place column and place the eight below the line in the ones' place column.

$$\begin{array}{r} 1 \\ 456 \\ \times 3 \\ \hline 8 \end{array} =$$

2. step

Multiply the digit in the tens' place column (5) by the second number (3). The result is $5 \times 3 = 15$. Add the 1 to the 15 ($15 + 1 = 16$). This number is larger than 9, so place the one above the hundreds' place column and place the six below the line in the tens' place column.

$$= \begin{array}{r} + \\ 1 \\ 456 \\ \times 3 \\ \hline 6 \end{array} = 68$$

3. step

Multiply the digit in the hundreds' place column (4) by the second number (3). The result is $4 \times 3 = 12$. Add the 1 to the 12 ($12 + 1 = 13$). Place the result (13) below the line to the left of the 6.

$$= \begin{array}{r} + \\ 11 \\ 456 \\ \times 3 \\ \hline 1368 \end{array}$$