

# A Three-Digit Multiplier, Plus Zeros

The multiplication algorithm works the same with 3-digit numbers. We simply have three partial products to do, and so the multiplication process takes three lines. Lastly add.

$$\begin{array}{r} \phantom{2}6 \\ 429 \\ \times 227 \\ \hline 3003 \end{array}$$

First you multiply the number by the ones.

$$\begin{array}{r} \phantom{1} \\ 429 \\ \times 227 \\ \hline 3003 \\ 8580 \end{array}$$

Then by the tens. Here you need to put a zero in the ones place.

$$\begin{array}{r} \phantom{1} \\ 429 \\ \times 227 \\ \hline 3003 \\ 8580 \\ 85800 \end{array}$$

Then by the hundreds. Here you need to put a zero in the ones AND in the hundreds place.

$$\begin{array}{r} 429 \\ \times 227 \\ \hline 3003 \\ 8580 \\ + 85800 \\ \hline 97383 \end{array}$$

Lastly add.

1. Multiply.

a.

$$\begin{array}{r} \phantom{1}91 \\ \phantom{1}245 \\ \times \phantom{1}245 \\ \hline \\ + \\ \hline \end{array}$$

b.

$$\begin{array}{r} \phantom{1}09 \\ \phantom{1}228 \\ \times \phantom{1}228 \\ \hline \\ + \\ \hline \end{array}$$

c.

$$\begin{array}{r} \phantom{1}46 \\ \phantom{1}137 \\ \times \phantom{1}137 \\ \hline \\ + \\ \hline \end{array}$$

d.

$$\begin{array}{r} \phantom{1}15 \\ \phantom{1}723 \\ \times \phantom{1}723 \\ \hline \\ + \\ \hline \end{array}$$

e.

$$\begin{array}{r} \phantom{1}07 \\ \phantom{1}803 \\ \times \phantom{1}803 \\ \hline \\ + \\ \hline \end{array}$$

f.

$$\begin{array}{r} \phantom{1}25 \\ \phantom{1}662 \\ \times \phantom{1}662 \\ \hline \\ + \\ \hline \end{array}$$