

## Multiplying 2-Digit Numbers (with guides)

A-MM2 1

**Instructions:** Multiply these numbers.

**Example**

The 2 got carried and then was crossed off after it was added to the answer from  $4 \times 1$

This 1 got carried during the addition we did to get the final answer

$$\begin{array}{r}
 17 \\
 \times 24 \\
 \hline
 68 \\
 + 340 \\
 \hline
 408
 \end{array}$$

This 1 got carried from multiplying the second bottom digit. ( $2 \times 7 = 14$ )

1

$$\begin{array}{r}
 23 \\
 \times 12 \\
 \hline
 46 \\
 + 230 \\
 \hline
 276
 \end{array}$$

2

$$\begin{array}{r}
 12 \\
 \times 35 \\
 \hline
 60 \\
 + 360 \\
 \hline
 420
 \end{array}$$

3

$$\begin{array}{r}
 18 \\
 \times 13 \\
 \hline
 54 \\
 + 180 \\
 \hline
 234
 \end{array}$$

4

$$\begin{array}{r}
 42 \\
 \times 16 \\
 \hline
 252 \\
 + 420 \\
 \hline
 672
 \end{array}$$

5

$$\begin{array}{r}
 47 \\
 \times 26 \\
 \hline
 282 \\
 + 940 \\
 \hline
 1222
 \end{array}$$

6

$$\begin{array}{r}
 42 \\
 \times 58 \\
 \hline
 336 \\
 + 2100 \\
 \hline
 2436
 \end{array}$$

## Multiplying 2-digit numbers by 3-digit numbers (with guides)

A-MM 2

Instructions: Multiply these numbers.

Example

$$\begin{array}{r}
 \begin{array}{c} 24 \\ 12 \end{array} \\
 248 \\
 \times 53 \\
 \hline
 1744 \\
 + 12400 \\
 \hline
 13144
 \end{array}$$

Don't forget to cross off the digits you carry from the first answer line after you are finished with them.

1

$$\begin{array}{r}
 \begin{array}{c} 32 \\ 21 \end{array} \\
 186 \\
 \times 43 \\
 \hline
 558 \\
 + 7440 \\
 \hline
 7998
 \end{array}$$

2

$$\begin{array}{r}
 \begin{array}{c} 5 \\ 2 \end{array} \\
 507 \\
 \times 83 \\
 \hline
 1521 \\
 + 40560 \\
 \hline
 42081
 \end{array}$$

3

$$\begin{array}{r}
 \begin{array}{c} 1 \\ 1 \end{array} \\
 612 \\
 \times 37 \\
 \hline
 4284 \\
 + 18360 \\
 \hline
 22644
 \end{array}$$

4

$$\begin{array}{r}
 \begin{array}{c} 2 \\ 14 \end{array} \\
 429 \\
 \times 35 \\
 \hline
 2145 \\
 + 12870 \\
 \hline
 15015
 \end{array}$$

5

$$\begin{array}{r}
 \begin{array}{c} 11 \\ 11 \end{array} \\
 722 \\
 \times 56 \\
 \hline
 4332 \\
 + 36100 \\
 \hline
 40432
 \end{array}$$

6

$$\begin{array}{r}
 \begin{array}{c} 11 \\ 22 \end{array} \\
 365 \\
 \times 24 \\
 \hline
 1460 \\
 + 7300 \\
 \hline
 8760
 \end{array}$$

## Multiplying by a 3-Digit Number (with guides)

A-MM2 3

Instructions: Multiply these numbers.

Example

$$\begin{array}{r}
 \phantom{0}2\phantom{0}1 \\
 \phantom{0}1\phantom{0}1 \\
 \phantom{0}1\phantom{0}1 \\
 \phantom{0}1\phantom{0}1 \\
 \hline
 653 \\
 \times 432 \\
 \hline
 1306 \\
 19590 \\
 + 261200 \\
 \hline
 282096
 \end{array}$$

Because we have 3 answers, there are 3 sets of carried digits.

Remember, our third answer line needs two zeros so that it's 100 times bigger.

1

$$\begin{array}{r}
 \phantom{0}2 \\
 \phantom{0}1 \\
 \phantom{0}3\phantom{0}1 \\
 \hline
 172 \\
 \times 325 \\
 \hline
 860 \\
 3440 \\
 + 51600 \\
 \hline
 55900
 \end{array}$$

2

$$\begin{array}{r}
 \phantom{0}1 \\
 \phantom{0}1\phantom{0}2 \\
 \hline
 637 \\
 \times 204 \\
 \hline
 2548 \\
 0000 \\
 + 127400 \\
 \hline
 129948
 \end{array}$$

3

$$\begin{array}{r}
 \phantom{0}3 \\
 \phantom{0}4 \\
 \phantom{0}2 \\
 \hline
 508 \\
 \times 463 \\
 \hline
 1524 \\
 30480 \\
 + 203200 \\
 \hline
 235204
 \end{array}$$

4

$$\begin{array}{r}
 \phantom{0}1 \\
 \phantom{0}1\phantom{0}3 \\
 \phantom{0}2 \\
 \hline
 1,217 \\
 \times 539 \\
 \hline
 10953 \\
 36510 \\
 + 608500 \\
 \hline
 655963
 \end{array}$$

## Multi-Digit Multiplication Practice

A-MM2 4

Instructions: Multiply these numbers.

$$\begin{array}{r} \phantom{1} \\ \phantom{2} \\ 1 \\ 48 \\ \times 23 \\ \hline 144 \\ + 960 \\ \hline 1,104 \end{array}$$

$$\begin{array}{r} \phantom{4} \\ \phantom{3} \\ 4 \\ 37 \\ \times 75 \\ \hline 185 \\ + 2590 \\ \hline 2,775 \end{array}$$

$$\begin{array}{r} \phantom{3} \\ \phantom{9} \\ 3 \\ 98 \\ \times 41 \\ \hline 98 \\ + 3920 \\ \hline 4,018 \end{array}$$

$$\begin{array}{r} \phantom{1} \\ \phantom{5} \\ 1 \\ 52 \\ \times 16 \\ \hline 312 \\ + 520 \\ \hline 832 \end{array}$$

$$\begin{array}{r} \phantom{2} \\ \phantom{8} \\ 2 \\ 86 \\ \times 43 \\ \hline 258 \\ + 3440 \\ \hline 3,698 \end{array}$$

$$\begin{array}{r} \phantom{3} \\ \phantom{1} \\ 3 \\ 135 \\ \times 94 \\ \hline 540 \\ + 12150 \\ \hline 12,690 \end{array}$$

$$\begin{array}{r} \phantom{1} \\ \phantom{6} \\ 1 \\ 3 \\ 605 \\ \times 26 \\ \hline 3630 \\ + 12100 \\ \hline 15,730 \end{array}$$

$$\begin{array}{r} \phantom{2} \\ \phantom{5} \\ 2 \\ 514 \\ \times 72 \\ \hline 1028 \\ + 35980 \\ \hline 37,008 \end{array}$$

$$\begin{array}{r} \phantom{3} \\ \phantom{3} \\ 3 \\ 2 \\ 371 \\ \times 54 \\ \hline 1484 \\ + 18550 \\ \hline 20,034 \end{array}$$