

Column multiplication – How to: step by step

$$324 \times 56$$

1. Write out the multiplication in column method

$$\begin{array}{r} 324 \\ \times 56 \\ \hline \end{array}$$

Make sure to line up your columns

2. Multiple the ones together (6 x 4)

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 4 \\ \end{array}$$

24 - Write the 4 in the ones column and carry the 2 in your tens column

3. Multiple the one by the tens (6 x 2)

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 44 \\ 1 \end{array}$$

12 – *Add the carried over digit.* $12 + 2$
Write the 4 in the tens column and carry the 1 in your hundreds column

4. Multiple the one by the hundreds (6 x 3)

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ 1 \end{array}$$

18 – *Add the carried over digit.* $18 + 1$
Write the 9 in the hundreds column and write the 1 in the thousands column

5. Write the magic zero.

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ 1 \end{array}$$

Write the magic zero in your ones column. This means that you don't need to do 50 times each number and can just do 5 times each number

0

6. Multiple the ten by the one (5 x 4)

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ \overset{\pm 2}{00} \\ 2 \end{array}$$

20 – Write the 0 in the tens column and write the 2 in the hundreds column

7. Multiple the ten by the ten (5 x 2)

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ \overset{\pm 2}{200} \\ 12 \end{array}$$

10 – Add the carried over digit. $10 + 2$
Write the 2 in the hundreds column and write the 1 in the thousands column

8. Multiple the ten by the hundred (5 x 3)

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ \overset{\pm 2}{16200} \\ \overset{\pm 2}{1} \end{array}$$

15 – Add the carried over digit. $15 + 1$
Write the 6 in the thousands column and write the 1 in the ten thousands column

9. Add the two numbers together using column addition

$$\begin{array}{r} 324 \\ \times 56 \\ \hline 1944 \\ \overset{\pm 2}{16200} \\ \overset{\pm 2}{1} \\ \hline 18144 \\ \overset{\pm 1}{1} \end{array}$$

Ones column: $4 + 0 = 4$

Tens column: $4 + 0 = 4$

Hundreds column: $9 + 2 = 11$ (carry the 1)

Thousands column: $1 + 6 + 1 = 8$

Ten thousands column: 1

$$324 \times 56 = 18,144$$