

Using Paper and Pencil

Each part of multiple-digit number (ones, tens, hundreds, and so on) is multiplied by the 1-digit number, and all the resulting partial products are **added together**.

Example 1

Complete the following equation: $34 \times 2 =$

Explanation

Step 1: Line up the place values.

$$\begin{array}{r} 34 \\ \times 2 \\ \hline \end{array}$$

Step 2: Multiply: $2 \times 4 = 8$. Write 8 in the *ones' column*.

$$\begin{array}{r} 34 \\ \times 2 \\ \hline 8 \end{array}$$

Step 3: Multiply: $2 \times 3 = 6$. Write 6 in the *tens' column*.

$$\begin{array}{r} 34 \\ \times 2 \\ \hline 68 \end{array}$$

Therefore, the answer is 68.

$$\begin{array}{r} 34 \\ \times 2 \\ \hline 8 \longrightarrow 2 \times 4 = 8 \\ + 60 \longrightarrow 2 \times 30 = 60 \\ \hline 68 \end{array}$$

Example 2

Complete the following equation: $258 \times 3 =$

Explanation

Step 1: Line up the place values.

$$\begin{array}{r} 258 \\ \times 3 \\ \hline \end{array}$$

Step 2: Multiply: $3 \times 8 = 24$. Break down 24 into 2 tens and 4 ones. Write the 4 under the *ones' column*. Carry the 2 over to the *tens' column*.

$$\begin{array}{r} 2 \\ 258 \\ \times 3 \\ \hline 4 \end{array}$$

Step 3: Multiply: $3 \times 5 = 15$. Add the extra 2 that was carried over ($15 + 2 = 17$). Write the 7 under the *tens' column*. Carry the 1 over to the *hundreds' column*.

$$\begin{array}{r} 1 \ 2 \\ 258 \\ \times 3 \\ \hline 74 \end{array}$$

Step 4: Multiply: $2 \times 3 = 6$. Add the extra 1 that was carried over ($6 + 1 = 7$). Write a 7 under the *hundreds' column*.

$$\begin{array}{r} 1 \ 2 \\ 258 \\ \times 3 \\ \hline 774 \end{array}$$

Therefore, the answer is 774.

Example 3

Complete the following equation: $206 \times 4 =$

Explanation

Step 1: Line up the place values.

$$\begin{array}{r} 206 \\ \times 4 \\ \hline \end{array}$$

Step 2: Multiply: $4 \times 6 = 24$. Break down 24 into 2 tens and 4 ones. Write the 4 under the *ones' column*. Carry the 2 over to the *tens' column*.

$$\begin{array}{r} 2 \\ 206 \\ \times 4 \\ \hline 4 \end{array}$$

Step 3: Multiply: $4 \times 0 = 0$. Add the extra 2 that was carried over, $2 + 0 = 2$. Write a 2 under the *tens' column*.

$$\begin{array}{r} 2 \\ 206 \\ \times 4 \\ \hline 24 \end{array}$$

Step 4: Multiply: $2 \times 4 = 8$. Write a 8 under the *hundreds' column*.

$$\begin{array}{r} 2 \\ 206 \\ \times 4 \\ \hline 824 \end{array}$$

Therefore, the answer is 824.