

MULTIPLYING A DECIMAL BY A DECIMAL

To multiply decimals, treat them as if they were whole numbers, at first ignoring the decimal point.

Example:

$$\begin{array}{r} \text{1st} \\ \text{Step} \end{array} \quad \begin{array}{r} 0.16 \leftarrow \text{multiplicand} \\ \times 0.04 \leftarrow \text{multiplier} \\ \hline ? \leftarrow \text{product} \end{array}$$

$$\begin{array}{r} \text{2nd} \\ \text{Step} \end{array} \quad \begin{array}{r} 0.16 \\ \times 0.04 \\ \hline 64 \end{array}$$

Multiply as if the factors were whole numbers.

Then count the places to the right of the decimal point in both the multiplicand and the multiplier. This will give you the number of places to the right of the decimal point needed in the product.

3rd
Step

$$\begin{array}{r} 0.0064 \\ \quad \quad \quad \underbrace{\quad \quad \quad}_{4321} \end{array}$$

Add zeros between the decimal point and the product if needed.

$$\begin{array}{r} \text{Add: } 2 \text{ places in the multiplicand} \\ + 2 \text{ places in the multiplier} \\ \hline 4 \text{ places in the product} \end{array}$$

Count 4 decimal places from the right of the product to place the decimal point.

The product is .0064