

Multiplying Decimals

To multiply decimals, multiply as with whole numbers. The product has the same number of decimal places as the sum of the decimal places of the factors. Use estimation to determine whether your answers are reasonable.

EXAMPLES

Multiply Decimals

Multiply.

1 1.3×0.9 **Estimate** $1 \times 1 = 1$

$$\begin{array}{r} 1.3 \leftarrow 1 \text{ decimal place} \\ \times 0.9 \leftarrow 1 \text{ decimal place} \\ \hline 1.17 \leftarrow 2 \text{ decimal places} \end{array}$$

The product is reasonable.

2 0.054×1.6 **Estimate** $0 \times 2 = 0$

$$\begin{array}{r} 0.054 \leftarrow 3 \text{ decimal places} \\ \times 1.6 \leftarrow 1 \text{ decimal place} \\ \hline 324 \\ \hline 540 \end{array}$$

0.0864 Annex a zero on the left so the answer has four decimal places. **Compare to the estimate.**