Multiply a Decimal by a Whole Number

Multiplying a decimal by a whole number is easy:

1. Simply **multiply as if there were no decimal points.**
2. Put a decimal point in the answer in such a way that your answer has the SAME NUMBER of DECIMAL DIGITS as the decimal you were multiplying.

Example 1. Which of these, 143.64 or 14.364 or 1.4364, is the answer to 6 × 2.394?

Since 2.394 has three decimals, and we multiply it by a whole number, the answer also must have three decimals. So it is 14.364.

Or, you can use estimation. The answer to 6 × 2.394 must be close to 6 × 2 = 12. So, 14.364 is the only reasonable choice.

Example 2.

$$\begin{array}{r} {\scriptstyle 1\ 2\ 2\ \ } \\ 7.2\,5\,5 \\ \times \qquad 4 \\ \hline 2\,9.0\,2\,0 \end{array}$$

Estimate: 4 × 7 = 28.

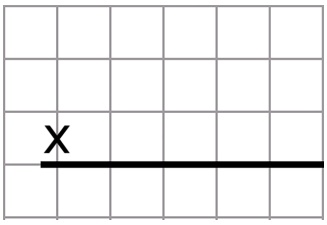
The decimal point is placed so that the answer has 3 decimals.

1. The answers lack a decimal point. Put it in the right place.

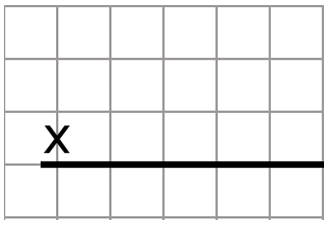
a. 8 × 13.1 = 1048 8 × 1.31 = 1048	**b.** 15 × 5.62 = 8430 15 × 56.2 = 8430	**c.** 22 × 8.06 = 17732 2.2 × 806 = 17732

2. Solve by multiplying in columns. It is easier if you always write the *longer* number on top. For example, in (d), write 171 on top, and 0.8 under it.

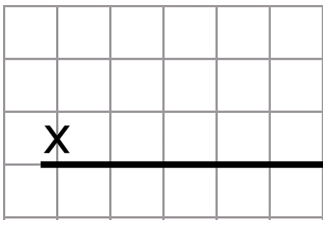
a. 6 × 2.7



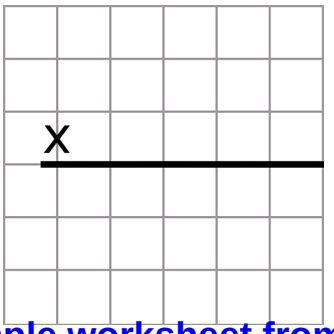
b. 7 × 8.029



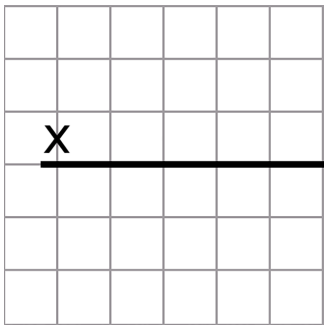
c. 5 × 1.093



d. 171 × 0.8



e. 12 × 3.12



f. 11 × $0.56