

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 $6 \times 2 = 12$. So, 14.364 is the only reasonable choice.

Example 2.

$$\begin{array}{r} 122 \\ 7.255 \\ \times \quad 4 \\ \hline 29.020 \end{array}$$

Estimate: $4 \times 7 = 28$.

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. $8 \times 13.1 = 1048$

$8 \times 1.31 = 1048$

b. $15 \times 5.62 = 8430$

$15 \times 56.2 = 8430$

c. $22 \times 8.06 = 17732$

$2.2 \times 806 = 17732$

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. $11 \times \$0.56$
