

Chapter 2	Fractions and Decimals
Date:	2.5 Multiplying Decimals
Essential Question	How can you multiply decimals?
Steps	<ol style="list-style-type: none">1) Multiply as you would with whole numbers. (Line up the numbers, not the decimals.) Put the number with the most digits on top.2) Count the total number of decimal places from the right in the two factors (numbers being multiplied).3) Start from the right and count over the number of decimal places. This is where your decimal goes in your answer.

Complete the next few problems in your composition book.

1) $4 \times 34.6 = 138.4$ 2) $3 \times 0.016 = 0.048$

$$\begin{array}{r} \overset{1}{3} \overset{2}{4} \cdot \underline{6} \\ \times 4 \\ \hline 138.\underline{4} \end{array} \quad \begin{array}{l} 1 \text{ decimal place} \\ \hline 1 \text{ decimal place} \end{array}$$

$$\begin{array}{r} \overset{1}{0} \cdot \underline{016} \\ \times 3 \\ \hline 0.\underline{048} \end{array} \quad \begin{array}{l} 3 \text{ decimal places} \\ \hline 3 \text{ decimal places} \end{array}$$

Complete problems 1 and 2 on your notes page.

1) $5 \times 14.51 = 72.55$

$$\begin{array}{r} \overset{2}{1}4.\overset{2}{5}1 \\ \times \quad 5 \\ \hline 72.\overset{2}{5}5 \end{array}$$

2 decimal places
2 decimal places

72.55

2) $0.003 \times 10 = 0.03$

$$\begin{array}{r} 0.\overset{3}{0}003 \\ \times \quad 10 \\ \hline 0000 \\ + 0030 \\ \hline 0.\overset{3}{0}030 \end{array}$$

3 decimal places
3 decimal places

0.03

Complete the next few problems in your composition book.

3) $4.8 \times 7.2 = 34.56$

$$\begin{array}{r} 5 \\ 1 \\ 4.8 \quad 1 \text{ decimal place} \\ \times 7.2 \quad 1 \text{ decimal place} \\ \hline 96 \\ + 3360 \\ \hline 34.56 \quad 2 \text{ decimal places} \end{array}$$

4) $3.1 \times 0.05 = 0.155$

$$\begin{array}{r} 1 \\ 0.05 \quad 2 \text{ decimal places} \\ \times 3.1 \quad 1 \text{ decimal place} \\ \hline 005 \\ + 0150 \\ \hline 0.155 \quad 3 \text{ decimal places} \end{array}$$

Complete problems 3 and 4 on your notes page.

3) 6×3.91

$$\begin{array}{r} 5 \\ 3.91 \text{ 2 decimal places} \\ \times 6 \\ \hline 23.46 \text{ 2 decimal places} \end{array}$$

23.46

4) 3.5×0.016

$$\begin{array}{r} 1 \\ 3 \\ 0.016 \text{ 3 decimal places} \\ \times 3.5 \text{ 1 decimal place} \\ \hline 0080 \\ + 00480 \\ \hline 0.0560 \text{ 4 decimal places} \end{array}$$

0.056

Complete the next problem in your composition book.

5) What is the value of $2.44 (4.5 - 3.175)$?

$$\begin{array}{r} 4 \ 9 \ 10 \\ 4.500 \\ - 3.175 \\ \hline 1.325 \end{array}$$

$$\begin{array}{r} 1 \\ 1 \ 1 \ 2 \\ 1 \ 1 \ 2 \\ \hline 1.325 \quad 3 \text{ decimal places} \\ \times 2.44 \quad 2 \text{ decimal places} \\ \hline 5300 \\ 53000 \\ 265000 \\ \hline 3.23300 \quad 5 \text{ decimal places} \end{array}$$

$$2.44 (4.5 - 3.175) = 3.233$$

Complete problem 5 on your notes page.

5) What is the value of $123.6 + 8.2 \cdot 1.9$?

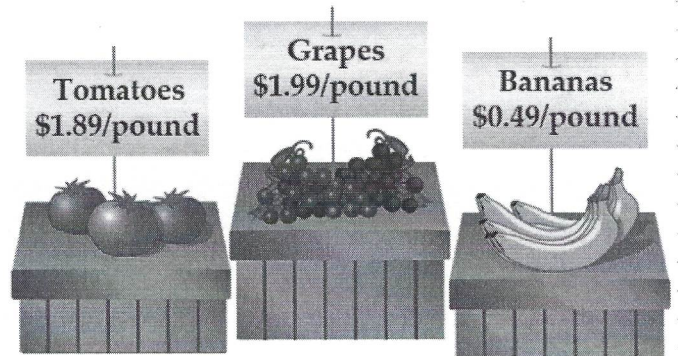
$$\begin{array}{r} \\ 123.60 \\ + 15.58 \\ \hline 139.18 \end{array}$$
$$\begin{array}{r} \\ 8.2 \quad 1 \text{ decimal place} \\ \times 1.9 \quad 1 \text{ decimal place} \\ \hline 738 \\ + 820 \\ \hline 15.58 \quad 2 \text{ decimal places} \end{array}$$

$$123.6 + 8.2 \cdot 1.9 = 139.18$$

Complete problem 6 in your composition book.

- 6) You buy 2.75 pounds of tomatoes. You hand the cashier a \$10 bill.
How much change will you receive?

$$\begin{array}{r} \\ \\ 2.75 \quad 2 \text{ decimal places} \\ \times 1.89 \quad 2 \text{ decimal places} \\ \hline 2475 \\ 22000 \\ 27500 \\ \hline 5.1975 \quad 4 \text{ decimal places} \end{array}$$



$$\begin{array}{r} \\ 10.00 \\ - 5.20 \\ \hline 4.80 \end{array}$$

You will get \$4.80 in change.

