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Modified In-School Off-School Approach Modules (MISOSA)  
**Distance Education for Elementary Schools**  
**SELF-INSTRUCTIONAL MATERIALS**



**MULTIPLICATION OF  
DECIMALS BY DECIMALS  
THROUGH HUNDREDTHS**



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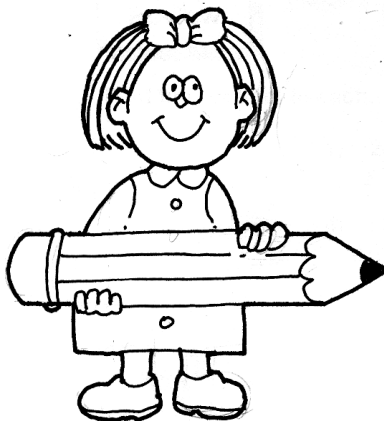


## MULTIPLICATION OF DECIMALS BY DECIMALS THROUGH HUNDREDTHS

**Objective:** Multiply decimals by decimals through the hundredths place



Find the product in each.



$$\begin{array}{r} 1) \quad 24 \\ \quad \times 3 \\ \hline \end{array}$$

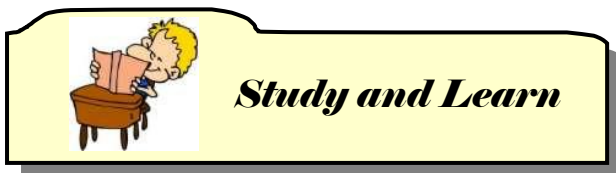
$$\begin{array}{r} 2) \quad 45 \\ \quad \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 57 \\ \quad \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 32 \\ \quad \times 43 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 64 \\ \quad \times 38 \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 71 \\ \quad \times 26 \\ \hline \end{array}$$



Arnold had a plot garden. What is its area if the length is 0.85 m and the width is 0.4 m?

To find the area of the plot garden, we multiply 0.85 by 0.4.



To solve for  $0.85 \times 0.4$ , follow the steps below.

- 1. Multiply the numbers as you would multiply whole numbers. Regroup if necessary.**

$$\begin{array}{r} 0.85 \\ \times 0.4 \\ \hline 0.340 \end{array}$$

- 2. Count the number of decimal places in the factors.**

$$\begin{array}{r} 0.85 \leftarrow 2 \text{ decimal places} \\ \times 0.4 \leftarrow 1 \text{ decimal place} \\ \hline 0.340 \leftarrow 3 \text{ decimal places in all} \end{array}$$

- 3. Place the decimal point in the product according to the number of decimal places in the factors.**

$$\begin{array}{r} 0.85 \\ \times 0.4 \\ \hline 0.340 \leftarrow 3 \text{ decimal places in all} \end{array}$$

Here are other examples for you to study.

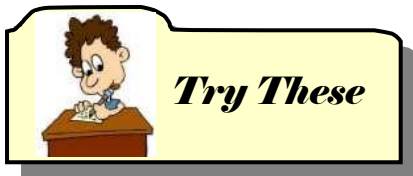
1)  $0.29 \leftarrow 2$  decimal places  
 $\begin{array}{r} \times 0.6 \leftarrow 1 \text{ decimal place} \\ \hline 0.174 \leftarrow 3 \text{ decimal places in all} \end{array}$

2)  $0.37 \leftarrow 2$  decimal places  
 $\begin{array}{r} \times 0.42 \leftarrow 2 \text{ decimal places} \\ \hline 74 \\ 148 \\ \hline 0.1554 \leftarrow 4 \text{ decimal places in all} \end{array}$

3)  $0.16 \leftarrow 2$  decimal places  
 $\begin{array}{r} \times 0.21 \leftarrow 2 \text{ decimal places} \\ \hline 16 \\ 32 \\ \hline 0.0336 \leftarrow 4 \text{ decimal places in all} \end{array}$



Use zero as placeholder whenever necessary.



### *Try These*

Find the product in each case.

$0.25 \times 0.5$	$0.64 \times 0.8$	$0.32 \times 0.4$
$0.27 \times 0.16$	$0.85 \times 0.34$	$0.62 \times 0.27$
$\begin{array}{r} 0.25 \\ \times 0.31 \\ \hline \end{array}$	$\begin{array}{r} 0.69 \\ \times 0.43 \\ \hline \end{array}$	$\begin{array}{r} 0.72 \\ \times 0.13 \\ \hline \end{array}$



### *Wrap Up*

To multiply decimals by decimals through the hundredths place, follow these steps:

- Multiply in the same way as you would multiply whole numbers. Regroup if necessary.
- Count the decimal places in the factors.
- Place the decimal point in the product according to the number of decimal places in the factors.



### ***On Your Own***

Find the product.

1)  $0.06 \times 0.72 = \square$

2)  $0.85 \times 0.3 = \square$

3)  $0.37 \times 0.40 = \square$

4)  $0.63 \times 0.42 = \square$

5)  $0.53 \times 0.15 = \square$

6) 
$$\begin{array}{r} 0.79 \\ \times 0.06 \\ \hline \end{array}$$

7) 
$$\begin{array}{r} 0.55 \\ \times 0.23 \\ \hline \end{array}$$

8) 
$$\begin{array}{r} 0.63 \\ \times 0.21 \\ \hline \end{array}$$

9) 
$$\begin{array}{r} 0.87 \\ \times 0.75 \\ \hline \end{array}$$

10) 
$$\begin{array}{r} 0.19 \\ \times 0.73 \\ \hline \end{array}$$

Check your answer with the answer key.

If you get...

8-10 Excellent! You may now proceed to the next lesson.

5-7 You need to review the processes you missed.

0-4 You need to repeat the whole process. Ask your teacher or elder to help you.



## Key to Correction

### MULTIPLICATION OF DECIMAL BY DECIMAL THROUGH HUNDREDTHS

#### REVIEW

- 1) 72
- 2) 270
- 3) 285
- 4) 1 376
- 5) 2 432
- 6) 1 846

#### TRY THESE

A  
0.125  
0.0432  
0.0775

B  
0.512  
0.2890  
0.2967

C  
0.128  
0.1674  
0.0936

#### ON YOUR OWN

- 1) 0.0432
- 2) 0.255
- 3) 0.148
- 4) 0.2646
- 5) 0.0795
- 6) 0.0474
- 7) 0.1265
- 8) 0.1323
- 9) 0.6525
- 10) 0.1387