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



**MULTIPLICATION OF  
DECIMALS BY  
10 AND 100**



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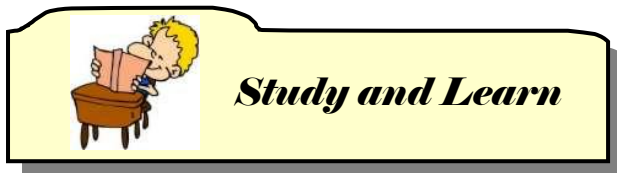
## MULTIPLICATION OF DECIMALS BY 10 AND 100

**Objective:** Multiply decimals by 10 and 100



Multiply as fast as you can.

- 1)  $26 \times 10$
- 2)  $245 \times 100$
- 3)  $365 \times 10$
- 4)  $483 \times 100$
- 5)  $121 \times 100$



Look at the table below.

A	B
$0.12 \times 10 = 1.2$	$0.12 \times 100 = 12$
$0.45 \times 10 = 4.5$	$0.45 \times 100 = 45$
$0.61 \times 10 = 6.1$	$0.61 \times 100 = 61$
$0.74 \times 10 = 7.4$	$0.74 \times 100 = 74$

Study the multiplication sentences in Column A.

Ten (10) is the common factor multiplied to the decimal numbers.

Look at their products. What do you notice?

How many places did the decimal point move?

Did the decimal point move to the left or to the right?

Look at Column B this time.

One hundred (100) is the common factor in the multiplication sentences.

What do you notice with the products?

How many decimal places did the decimal points move?





What do you observe...

- a. When a decimal is multiplied by 10?
- b. When a decimal is multiplied by 100?

Here are some examples. Observe closely the movement of the decimal point.

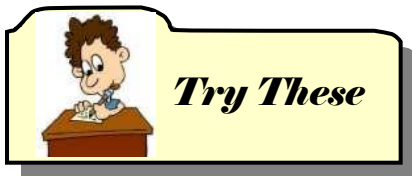
$$1.45 \times 10 = 14.5 \quad \leftarrow \quad \text{move 1 decimal place to the right}$$

$$76.43 \times 10 = 764.3 \quad \leftarrow \quad \text{move 1 decimal place to the right}$$

$$6.42 \times 100 = 642 \quad \leftarrow \quad \text{move 2 decimal places to the right}$$

$$42.78 \times 100 = 4278 \quad \leftarrow \quad \text{move 2 decimal places to the right}$$

Very easy! We just moved the decimal point 1 or 2 places to the right when we multiply decimals by 10 or 100, respectively.



A. Find the product by moving the decimal point correctly.

- |                       |                      |
|-----------------------|----------------------|
| 1) $4.25 \times 10$   | 5) $7.9 \times 10$   |
| 2) $16.72 \times 100$ | 6) $8.35 \times 100$ |
| 3) $45.27 \times 10$  | 7) $1.25 \times 10$  |
| 4) $33.45 \times 100$ | 8) $0.47 \times 100$ |

B. Write 10 or 100 in the box to make the multiplication sentence correct.

- |   |   |
|---|---|
| 1) $2.46 \times \underline{\quad} = 24.6$   | 6) $4.27 \times \underline{\quad} = 427$    |
| 2) $23.72 \times \underline{\quad} = 2372$  | 7) $10.25 \times \underline{\quad} = 102.5$ |
| 3) $42.73 \times \underline{\quad} = 427.3$ | 8) $3.04 \times \underline{\quad} = 304$    |
| 4) $62.29 \times \underline{\quad} = 622.9$ | 9) $40.02 \times \underline{\quad} = 400.2$ |
| 5) $0.23 \times \underline{\quad} = 2.3$    | 10) $3.63 \times \underline{\quad} = 36.3$  |





## *Wrap Up*

When multiplying decimals by 10 or 100 simply move the decimal point 1 or 2 places, respectively, to the right.



## *On Your Own*

A. Multiply.

- 1)  $2.69 \times 10$
- 2)  $3.33 \times 100$
- 3)  $14.38 \times 100$
- 4)  $2.27 \times 10$
- 5)  $102.34 \times 10$

B. Write 10 or 100 on the blank.

- 1)  $6.85 \times \underline{\quad} = 68.5$
- 2)  $2.3 \times \underline{\quad} = 23$
- 3)  $14.27 \times \underline{\quad} = 1427$
- 4)  $3.99 \times \underline{\quad} = 399$
- 5)  $16.41 \times \underline{\quad} = 164.1$

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.





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**Key to Correction**  
**MULTIPLICATION OF DECIMALS BY 10 AND 100**

**REVIEW**

- 1) 260
- 2) 24 500
- 3) 3 650
- 4) 48 300
- 5) 12 100

**TRY THESE**

**A**

- 1) 42.5
- 2) 1 672
- 3) 452.7
- 4) 3 345
- 5) 79
- 6) 835
- 7) 12.5
- 8) 47

**B**

- 1) 10
- 2) 100
- 3) 10
- 4) 10
- 5) 10
- 6) 100
- 7) 10
- 8) 100
- 9) 10
- 10) 10

**ON YOUR OWN**

**A**

- 1) 26.9
- 2) 333
- 3) 1 438
- 4) 22.7
- 5) 1023.4

**B**

- 1) 10
- 2) 10
- 3) 100
- 4) 100
- 5) 10