MATHEMATICS 5

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

Review

Multiply as fast as you can.

1) 26 x 10
2) 245 x 100
3) 365 x 10
4) 483 x 100
5) 121 x 100

Study and Learn

Look at the table below.

A	B
0.12 x 10 = 1.2	0.12 x 100 = 12
0.45 x 10 = 4.5	0.45 x 100 = 45
0.61 x 10 = 6.1	0.61 x 100 = 61
0.74 x 10 = 7.4	0.74 x 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 x 10 = 14.5 ← move 1 decimal place to the right

76.43 x 10 = 764.3 ← move 1 decimal place to the right

6.42 x 100 = 642 ← move 2 decimal places to the right

42.78 x 100 = 4278 ← 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 x 10
2) 16.72 x 100
3) 45.27 x 10
4) 33.45 x 100
5) 7.9 x 10
6) 8.35 x 100
7) 1.25 x 10
8) 0.47 x 100

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

1) 2.46 x ___ = 24.6
2) 23.72 x ___ = 2372
3) 42.73 x ___ = 427.3
4) 62.29 x ___ = 622.9
5) 0.23 x ___ = 2.3
6) 4.27 x ___ = 427
7) 10.25 x ___ = 102.5
8) 3.04 x ___ = 304
9) 40.02 x ___ = 400.2
10) 3.63 x ___ = 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 x 10
2) 3.33 x 100
3) 14.38 x 100
4) 2.27 x 10
5) 102.34 x 10

B. Write 10 or 100 on the blank.

1) 6.85 x ___ = 68.5
2) 2.3 x ___ = 23
3) 14.27 x ___ = 1427
4) 3.99 x ___ = 399
5) 16.41 x ___ = 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.

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