

**Decimals multiply by 10, 100:**

**\*\* When multiplying by 10 and 100, the decimal point moves to the right as many as the number of 0s.**

**Example -1:  $2.45 \times 10 = ?$**

**Solution:  $2.45 \times 10 = 24.5$**

$$2.45 \times 10 = 24.5$$

10 has one zero so decimal point will move one digit right.

**Example -2:  $0.45 \times 10 = ?$**

**Solution:  $0.45 \times 10 = 4.5$**

$$0.45 \times 10 = 4.5$$

10 has one zero so decimal point will move one digit right.

Example – 3:  $2.56 \times 100 = ?$

Solution:  $2.56 \times 100 = 256.0 / 256$

$$2.56 \times \underline{100} = 256.0 / 256$$

100 has two zeros so decimal point will move two digits right.

Example – 4:  $0.021 \times 100 = ?$

Solution:  $0.021 \times 100 = 2.1$

$$0.021 \times \underline{100} = 2.1$$

100 has two zeros so decimal point will move two digits right.

### Decimals divide by 10, 100:

\*\* When dividing by 10 and 100, the decimal point moves to the left as many as the number of 0s.

Example -1:  $2.45 \div 10 = ?$

Solution:  $2.45 \div 10 = 0.245$

$$2.45 \div \underline{10} = 0.245$$

10 has one zero so decimal point will move one digit left.

Example -2:  $25.6 \div 10 = ?$

Solution:  $25.6 \div 10 = 2.56$



$$25.6 \div 1\underline{0} = 2.56$$

10 has one zero so decimal point will move one digit left.

Example -3:  $63.7 \div 100 = ?$

Solution:  $63.7 \div 100 = 0.637$



$$63.7 \div 1\underline{00} = 0.637$$

100 has two zeros so decimal point will move two digits left.

Example -3:  $0.24 \div 100 = ?$

Solution:  $0.24 \div 100 = 0.0024$



$$00.24 \div 1\underline{00} = 0.0024$$

100 has two zeros so decimal point will move two digits left.

### Exercise

\*\* Multiply the following numbers by 10 and 100. And also divide them by 10 and 100.

1) 0.6

2) 0.49

3) 1.11

4) 7.32

5) 0.56