



Multiplication of a decimal by another decimal

Understanding the Topic

- When we multiply one decimal number with another decimal number, we ignore the decimal points first.
- Multiply the numbers like whole numbers.
- Then count the total number of digits after the decimal point in both numbers.
- Place the decimal point in the answer from right to left according to the total decimal places.

Steps to Multiply Two Decimals

- **Step 1:** Ignore the decimal points and multiply like whole numbers.
- **Step 2:** Count how many total digits are there after the decimal in both numbers.
- **Step 3:** Place the decimal in the product from the right.
- **Step 4:** Write the final answer with the decimal point at the correct position.

Examples with Solutions

1. Multiply 0.5×0.2

Ignore decimals: $5 \times 2 = 10$

Total digits after decimals = $1 + 1 = 2$

Place decimal: 0.10

Answer: 0.1

2. Multiply 1.5×0.4

Ignore decimals: $15 \times 4 = 60$

Total digits after decimals = $1 + 1 = 2$

Place decimal: 0.60

Answer: 0.6

3. Multiply 2.5×1.2

Ignore decimals: $25 \times 12 = 300$

Total digits after decimals = $1 + 1 = 2$



Place decimal: 3.00

Answer: 3.0

4. Multiply 0.75×0.3

Ignore decimals: $75 \times 3 = 225$

Total digits after decimals = $2 + 1 = 3$

Place decimal: 0.225

Answer: 0.225

5. Multiply 1.25×2.4

Ignore decimals: $125 \times 24 = 3000$

Total digits after decimals = $2 + 1 = 3$

Place decimal: 3.000

Answer: 3.0

Summary Points

- Multiply normally without decimals first.
- Count the total number of digits after decimal in both numbers.
- Place the decimal in the product from the right accordingly.
- Add zeros if needed to get correct place value.
- **Example:** $0.6 \times 0.2 = 0.12$.