

Year 5

Multiplying & Dividing Decimals by 10, 100, 1000**Quick Revision Reminder**

- **When multiplying ($\times$)**, digits move to the **left** on a place value grid (the number gets bigger).
- **When dividing ($\div$)**, digits move to the **right** on a place value grid (the number gets smaller).
- **10** = move **1** place | **100** = move **2** places | **1000** = move **3** places.

Part 1: Arithmetic Warm-up*Complete the calculations below.*

1. $4.26 \times 10 = \underline{\hspace{2cm}}$
2. $15.8 \div 100 = \underline{\hspace{2cm}}$
3. $0.073 \times 1000 = \underline{\hspace{2cm}}$
4. $612.4 \div 1000 = \underline{\hspace{2cm}}$
5. $0.93 \times 100 = \underline{\hspace{2cm}}$

Part 2: SATs-Style Missing Number Questions*Fill in the missing numbers or symbols to make the math balance correctly.*

6. Write the missing number.

$$6.108 \times \underline{\hspace{2cm}} = 610.8$$

7. Write the missing symbol ($\times$ or $\div$) in the box.

$$43.9 \square 100 = 0.439$$

8. Write the missing number.

$$\underline{\hspace{2cm}} \div 1000 = 0.025$$

9. Write the missing number.

$$0.74 \times 10 = 740 \div \underline{\hspace{2cm}}$$

Continued ...

Year 5**Multiplying & Dividing Decimals by 10, 100, 1000****Part 3: Balance and Comparison (SATs-Style)**

10. Write true or false for each of the following:

$$3.4 \times 100 = 3400 \div 10 \quad \text{true/false}$$

$$0.091 \times 1000 = 9.1 \times 10 \quad \text{true/false}$$

$$82.3 \div 10 = 8230 \div 1000 \quad \text{true/false}$$

Part 4: Word Problems and Reasoning*Show your working out for these multi-step or context problems.*

11. A stack of 100 identical textbooks has a total mass of 14.5 kg. What is the mass of one textbook? Give your answer in kilograms.

Working out space: _____

Answer: ___ kg

12. An individual paperclip weighs 0.012 grams. A factory packs paperclips into boxes of 1,000. What is the total mass of a full box of paperclips?

Working out space:

Answer: _____ grams

13. Circle the mistake. Olivia is completing her homework. She writes:

$$0.54 \div 10 = 0.054$$

$$5.4 \times 100 = 540$$

$$0.054 \times 1000 = 5.4$$

Explain why Olivia's final calculation is incorrect. What should the correct answer be?

Explanation:
