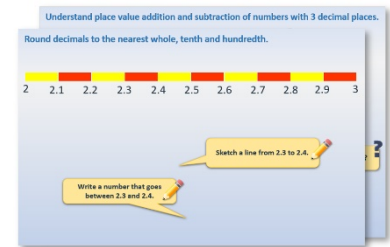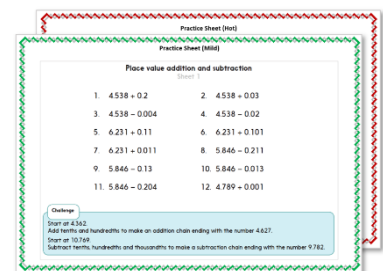# Year 5: Week 2, Day 1
Decimals: Multiply and divide by 10, 100 and 1000

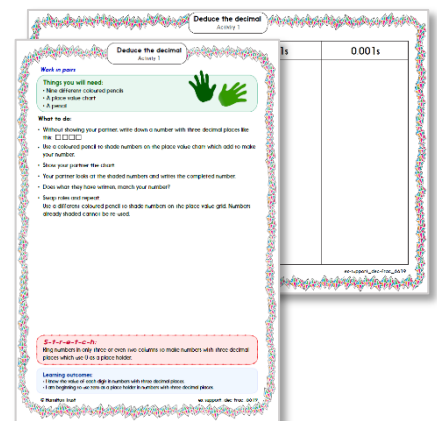**Each day covers one maths topic. It should take you about 1 hour or just a little more.**

1. Start by reading through the **Learning Reminders**.
   They come from our *PowerPoint* slides.

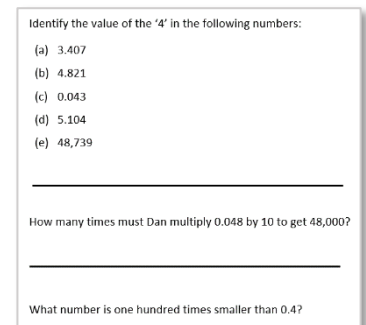2. Tackle the questions on the **Practice Sheet**.
   There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.

3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**

4. Have I mastered the topic? A few questions to **Check your understanding**.
   Fold the page to hide the answers!

Learning Reminders

Multiply and divide by 10, 100 and 1000.

10,000s	1000s	100s	10s	1s		0.1s $^1/_{10}$s	0.01s $^1/_{100}$s
		2	3	5			
			2 •	3		5	

If this was a measurement in centimetres, how would we write it in metres?

Note that the digits move and the decimal point does NOT move.

235 ÷ 100 = 2.35

When we **divide by 100**, the digits all move together, two place value columns to the right.

Multiply and divide by 10, 100 and 1000.

10,000s	1000s	100s	10s	1s		0.1s $^1/_{10}$s	0.01s $^1/_{100}$s
		4	2	9 •		9	
	4	2	9	9			

What if this was a distance in centimetres and I wanted to write it in millimetres?

429.9 x 10 = 4299

What did you need to do?

When we **multiply by 10**, the digits all move together, one place value column to the left.

Learning Reminders

Multiply and divide by 10, 100 and 1000.

Divide **7840** by 1000. How many places will the digits need to move?

1000s	100s	10s	1s	0.1s $1/_{10}$s	0.01s $1/_{100}$s
7	8	4	0		
			7•	8	4

Where has the zero gone?

When we **divide by 1000**, the digits all move together, three place value columns to the right.

When we **multiply** by **10**, **100** and **1000**, the digits all move together, **one**, **two**, or **three** place value columns **to the left**.

When we **divide** by **10**, **100** and **1000**, the digits all move together, **one**, **two**, or **three** place value columns **to the right**.

Practice Sheet Mild
Multiplying and dividing by 10 and 100

1. 34.6×10

2. 34.6×100

3. 6.74×10

4. 6.74×100

5. $483 \div 10$

6. $483 \div 100$

7. $56.1 \div 10$

8. 56.1×100

9. $83.4 \times \boxed{} = 834$

10. $83.4 \div \boxed{} = 8.34$

11. $47.2 \div \boxed{} = 4.72$

12. $47.2 \times \boxed{} = 4720$

Practice Sheet Hot
Multiplying and dividing by 10, 100 and 1000

1. 456.8 × 10

2. 4568 ÷ 10

3. 2.76 × 10

4. 843 ÷ 100

5. 47.3 × 100

6. 783 ÷ 100

7. 45.62 × 100

8. 783.4 ÷ 10

9. 45.74 × 1000

10. 3620 ÷ 1000

11. 348.2 × ☐ = 3482

12. 34,820 ÷ ☐ = 34.82

Challenge

Complete the following calculations.

78.43 × ☐ = 7843   78.43 × ☐ = 78,430   6450 ÷ ☐ = 64.5   6450 ÷ ☐ = 6.45

Extra Practice for All

Complete any empty boxes on this diagram. Watch out - they might be answers or operations…

x 1000	0.273

2.73

27.3

x 10

÷ 1000

2730
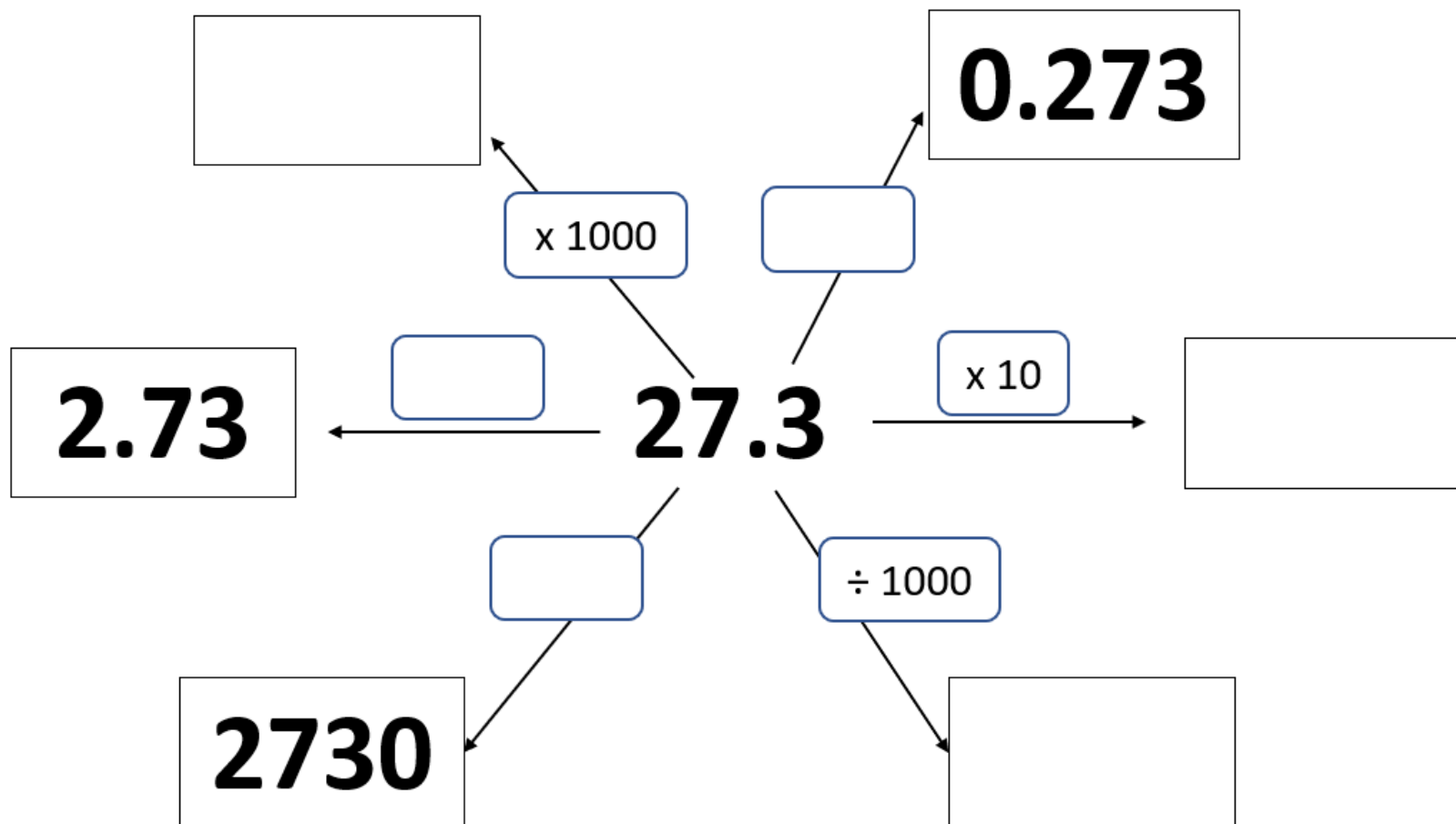
Create a similar diagram for a partner to solve.