Year 6 Spring 1

KIRF – I know how to multiply and divide decimals by 10, 100 and 100

Pictorial

What can this look like?

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
			2	0	8	
		2	0	8		
			2	0	8	

(× 10 arrow, ÷ 10 arrow)

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
		4	3	5		
4	3	5	0			
		4	3	5		

(× 100 arrow, ÷ 100 arrow)

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
			1	3	5	1
1	3	5	1			
			1	3	5	1

(× 1000 arrow, ÷ 1000 arrow)

Concrete

Use the place value grid to multiply 3.24 by 10, 100 and 1,000

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths
			●●●	●●	●●●

When you multiply by _____, you move the counters _____ places to the left.

Abstract

	× 10	× 100	× 1000
5.7	57	570	5700
23.02	230.2	2302	23 020
0.92	9.2	92	920
0.306	3.06	30.6	306
24.67	246.7	2467	24 670

Top tips

When multiplying, move ALL the digits to the left - x10 by 1 space, x100 by 2 spaces, x1000 by 3 spaces. We NEVER just add a zero!

When dividing move ALL the digits to the right - ÷ 10 by 1 space, ÷ 100 by 2 spaces, ÷ 1000 by 3 spaces.

Fill any place holder gaps with a zero!

Things to Try

https://mathsframe.co.uk/en/resources/category/372/identify-the-value-of-each-digit-to-three-decimal-places-and-multiply-and-divide-numbers-by-10-100-and-1000-where-the-answers-are-up-to-three-decimal-places

https://mathsbot.com/tools/placeValue

https://wordwall.net/resource/43841/maths/multiply-by-10-100-1000-tiles-2

Key Vocabulary

Decimal place

Tenths

Hundredths

Thousandths

Place holder