Target: To multiply by 10, 100 and 1000

This week we have been recapping our knowledge of multiplying by 10, 100 and 1000 from Year 4 and applying it to larger numbers. Please complete one of the following challenges.

Key learning:

When you **multiply by 10**, the digits in the number jump **one place to the left**.

When you **multiply by 100**, the digits in the number jump **two places to the left**.

When you **multiply by 1000**, the digits jump **three places to the left**.

We DO NOT add on any zeros.

Challenge 1

1) What number is shown on the place value chart?

_____

HTh	TTh	Th	H	T	O
			●● ●	●	●●●●● ●●●

Complete the sentences:

If I multiply this number by 10, it becomes _____.

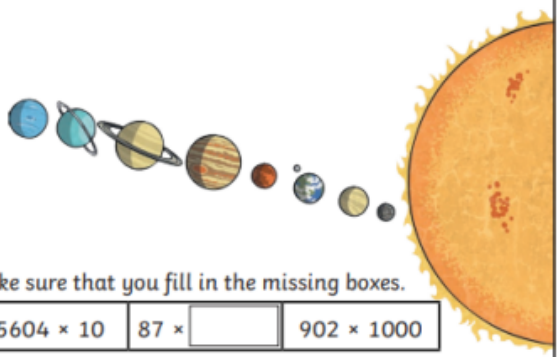
The digits move _____ place to the _____.

If I multiply this number by 100, it becomes _____.

The digits move _____ places to the _____.

If I multiply this number by 1000, it becomes _____.

The digits move _____ places to the _____.



2) Match each planet to its moon to complete the calculation. Make sure that you fill in the missing boxes.

Planets	83 × 100	☐ × 10	612 × ☐	5604 × 10	87 × ☐	902 × 1000

Moons	4030	56 040	8300	87 000	902 000	61 200

Challenge 2

1) Can you work out the diameter of these new planets using the clues below?
   Vesta is 10 times bigger than Athena.
   Athena has half the diameter of Vulcan.
   Juno is 10 times bigger than Athena.
   Ceres is 100 times bigger than Vulcan.
   Vulcan is 20 530km in diameter.
   Apollo is 100 times bigger than Athena.

Challenge 3

What could the values of A and B be? Find 3 possible solutions.

A × 100 = B × 1000

What could the values of A and B be? Find 3 possible solutions.

A × 1000 = B + 300