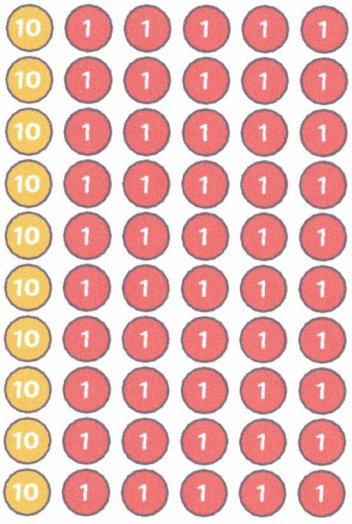
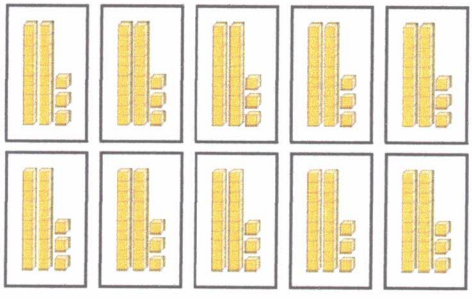
1) Look at the two images below. Explain what is the same and what is different about them.

?													
10	10	10	10	10	10	10	10	10	10	10	10	10	10



2) **a)** Look at the three calculation representations. Which one is the odd one out and why?

230									
23	23	23	23	23	23	23	23	23	23



b) Draw another model or image that could replace the odd one out.

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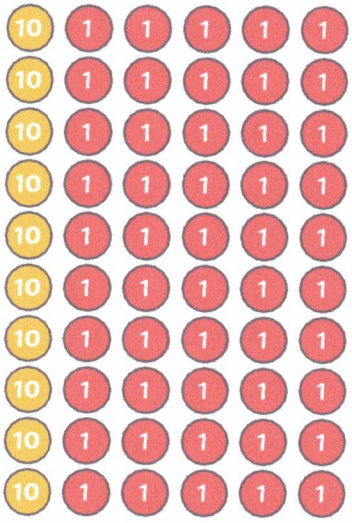
?													
10	10	10	10	10	10	10	10	10	10	10	10	10	10



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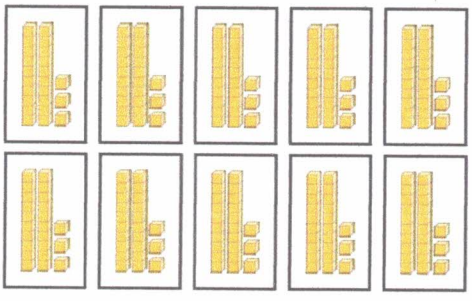

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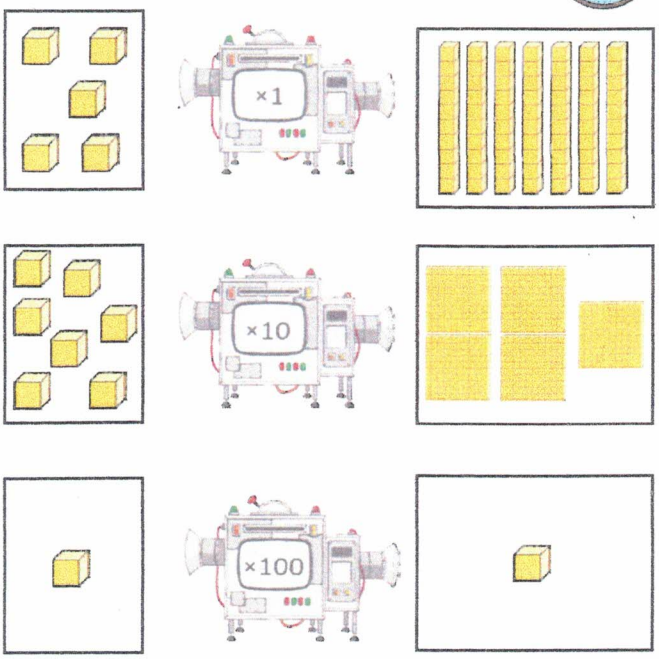
1) Match the images to the correct function machine to show the inputs and outputs.



2) Use a place value grid and draw counters to represent the answer to each calculation. Then write the answer.

a) 8 × 1 = _____

b) 8 × 10 = _____

c) 8 × 100 = _____

d) 43 × 1 = _____

e) 43 × 10 = _____

f) 43 × 100 = _____

g) 81 × 1 = _____

h) 81 × 10 = _____

i) 81 × 100 = _____

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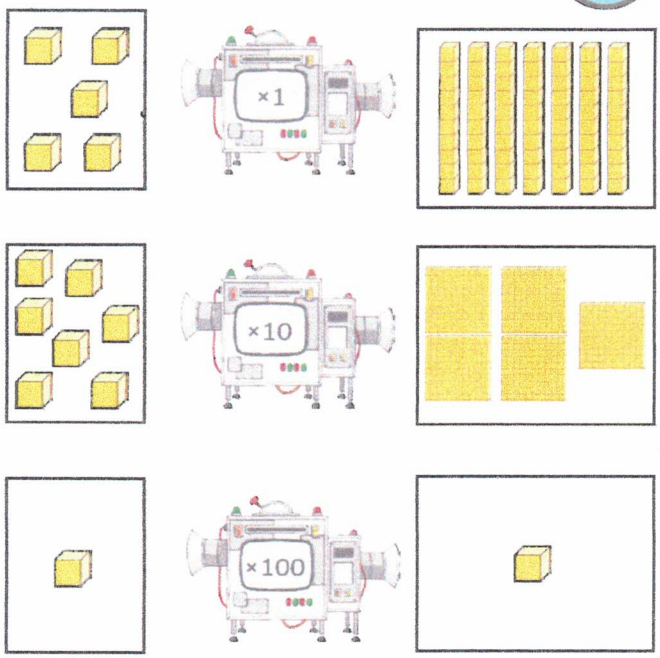

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What number is shown on the place value chart?

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 _____.

1) 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

1) Javine says, "To multiply by 1000, I just add three zeros."

Kian says, "I times by 10, then times by 10 and times by 10 again."

Do you agree with Javine and Kian's methods for multiplying by 1000? Explain your thinking.

2) Can you work out the diameter of these new planets using the clues below?

Vesta is 10 times bigger than Athena.

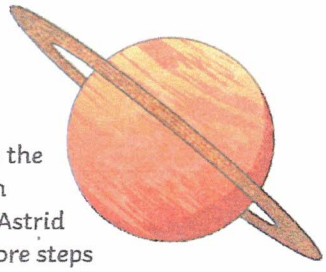
Athena has half the diameter of Vulcan.

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.



3) Alan and Astrid, the astronauts, are exploring the new planet, Vulcan. Alan has travelled 763 steps. Astrid has travelled 10 times more steps than Alan and then walked another 250 steps. How many steps has she travelled?

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 _____.

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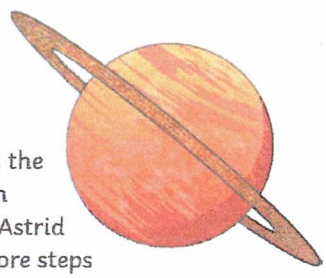

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