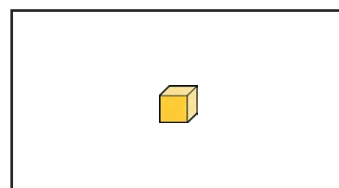
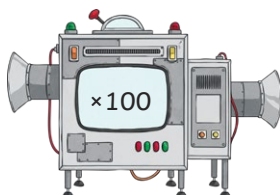
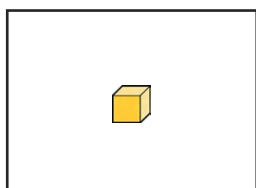
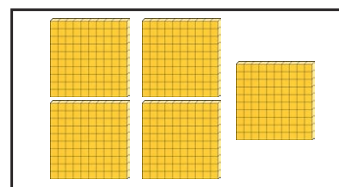
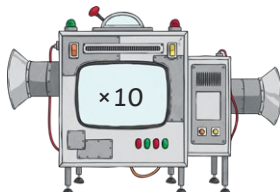
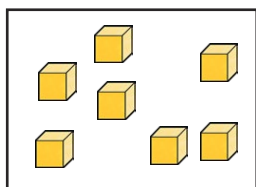
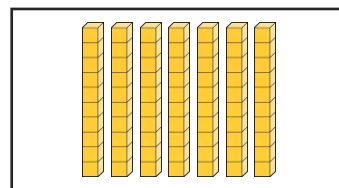
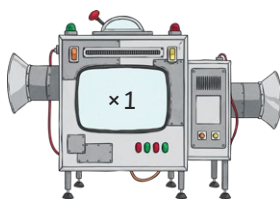
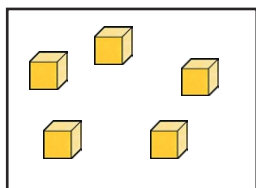




1) Match the images to the correct function machine to show the inputs and outputs.



2) Draw counters in the place value grids to represent the answer to each calculation and write the answer.

a)  $8 \times 1 =$  \_\_\_\_\_

| H | T | O |
|---|---|---|
|   |   |   |

b)  $8 \times 10 =$  \_\_\_\_\_

| H | T | O |
|---|---|---|
|   |   |   |

c)  $8 \times 100 =$  \_\_\_\_\_

| H | T | O |
|---|---|---|
|   |   |   |

d)  $43 \times 1 =$  \_\_\_\_\_

| Th | H | T | O |
|----|---|---|---|
|    |   |   |   |

e)  $43 \times 10 =$  \_\_\_\_\_

| Th | H | T | O |
|----|---|---|---|
|    |   |   |   |

f)  $43 \times 100 =$  \_\_\_\_\_

| Th | H | T | O |
|----|---|---|---|
|    |   |   |   |

g)  $81 \times 1 =$  \_\_\_\_\_

| Th | H | T | O |
|----|---|---|---|
|    |   |   |   |

h)  $81 \times 10 =$  \_\_\_\_\_

| Th | H | T | O |
|----|---|---|---|
|    |   |   |   |

i)  $81 \times 100 =$  \_\_\_\_\_

| Th | H | T | O |
|----|---|---|---|
|    |   |   |   |



- 1) The children have been calculating the answer to 34 multiplied by 100. Look at their representations and answers. Who is correct and who is incorrect? Explain why.

| Name                                                                                          | Representation                                                                                                                                                                                       | Correct or Incorrect? | Explanation |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|---|---|----|---|---|-----|----|---|---|---|----|---|--|--|--|--|
| Artim<br>    | <table><tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td></td><td>3</td><td>4</td></tr><tr><td>3</td><td>4</td><td>0</td><td>0</td></tr></table>                                    | Th                    | H           | T | O |    |   | 3 | 4   | 3  | 4 | 0 | 0 |    |   |  |  |  |  |
| Th                                                                                            | H                                                                                                                                                                                                    | T                     | O           |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
|                                                                                               |                                                                                                                                                                                                      | 3                     | 4           |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
| 3                                                                                             | 4                                                                                                                                                                                                    | 0                     | 0           |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
| François<br> | $34 \times 10 \times 10$                                                                                                                                                                             |                       |             |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
| Emily<br>   | <table><tr><th colspan="4">134</th></tr><tr><td>10</td><td>1</td><td>1</td><td>100</td></tr><tr><td>10</td><td>1</td><td></td><td></td></tr><tr><td>10</td><td>1</td><td></td><td></td></tr></table> | 134                   |             |   |   | 10 | 1 | 1 | 100 | 10 | 1 |   |   | 10 | 1 |  |  |  |  |
| 134                                                                                           |                                                                                                                                                                                                      |                       |             |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
| 10                                                                                            | 1                                                                                                                                                                                                    | 1                     | 100         |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
| 10                                                                                            | 1                                                                                                                                                                                                    |                       |             |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |
| 10                                                                                            | 1                                                                                                                                                                                                    |                       |             |   |   |    |   |   |     |    |   |   |   |    |   |  |  |  |  |

- 2) Read the statements below and decide if they are sometimes, always or never true. Explain your reasoning.

- a) When you multiply a positive number by 100, it will become greater.

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- b) When you multiply by 100, each digit moves three places to the left on the place value chart.

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- c) When you multiply by 100, the answer has a place holder in the hundreds column.

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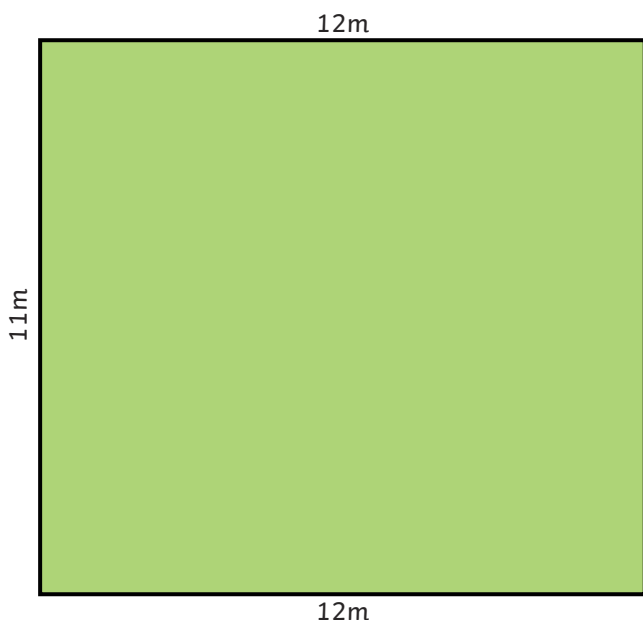
- 1) Angela multiplies a whole number by 100. Her answer has four digits. The sum of the digits is 15. What could Angela's original number and calculation have been? How many possible answers could there have been?



- 2) Abe multiplied a whole 2-digit number by 100. His number was an even number and a multiple of 7. What could the original calculation have been? How many possible answers could he get?



- 3) A school field has a perimeter of 46m. What is the length of the missing side? Give your answer in centimetres.



Show your working out here: