

FINDING A HIDDEN RULE

- 1 The table shows in **1** → out **4** and in **2** → out **5**.
- 2 **$1 + 3 = 4$** and **$2 + 3 = 5$** , so the rule is **add 3**.
- 3 Use the rule: **$3 + 3 = 6$** , so out is **6**.

In	1	2	3
Out	4	5	

 WARM-UP

Fill in the two-column input-output table for the 'add 5' game machine.



1. Write the rule 'add 5' at the top and label the columns input and output.
2. Put the inputs 3, 6, 9 and 0 in the input column.
3. Work out and write each output beside its input in the output column.

 PRACTICE

- 1 In the arcade a scoring machine adds 5 to every score fed in. Pádraig sends in a score of 3. What score comes out?
- 2 The same 'add 5' game machine now gets a score of 6 pushed in. What score does it show coming out?
- 3 A doubling game piles up your points, so its rule is 'multiply by 2'. Niamh puts in 5 points. How many come out?
- 4 A treble-token machine has the rule times 3. The children feed in 3, then 6, then 9, then 0 tokens. Write the four outputs.
- 5 A mystery machine on the games board shows 1 comes out as 4, 2 comes out as 5, and 3 comes out as 6. What one rule is it using?

! SPOT THE MISTAKE

Cian reads this input-output table and writes a rule:

```
in 1 → out 5
in 2 → out 6
in 3 → out 7
Rule: × 5
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Cian's rule is wrong. What is the correct rule? What comes out when the input is 4?

REFLECT

Once you spotted a rule, did you test it on another row before filling the gaps?