

Predict next year's school enrolment

MODULE 9 · MATHEMATICAL MODELING AND END-OF-YEAR REVIEW

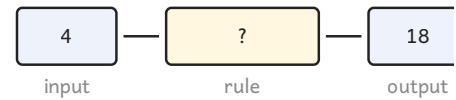
REVIEW

HOW TO ANSWER TODAY

- **Find the rule.** Look at how each input changes to its output. Try $\times$ first, then $+$ or $-$.
 $3 \rightarrow 6$, $5 \rightarrow 10$, $7 \rightarrow 14 \rightarrow$ rule is $\times 2$
- **Mean (average).** Add ALL the numbers. Divide by HOW MANY there are.

STRETCH PROBLEMS

- 1 At break time in 5th class, Niamh shares out biscuits from a packet. For every group that comes to her table, she gives them **14** more biscuits than the number of children in the group. When **4** children come, she gives **18** biscuits; when **2** come, she gives **16**; when **9** come, she gives **23**. What is the rule she is using?



- 2 Ms Murphy is decorating the 5th class room for World Book Day. For every shelf she fills with books, she pins up a fixed number of bunting flags around the room. She notices a pattern between books used and total decorations: **10** $\rightarrow$ **23**, **6** $\rightarrow$ **19**, **3** $\rightarrow$ **16**. What is the rule?



- 3 The 5th class library tracks how many books are borrowed each week. The first four weeks show **5**, **15**, **25** and **35** books borrowed. If the pattern continues, how many books will be borrowed in the next week?

- 4 Saoirse counts how many pupils cycle to school each day for a class survey. Over five days the numbers are **27**, **19**, **28**, **27** and **24**. What is the mean number of pupils who cycle each day?

