Number patterns and sequences — find the rule

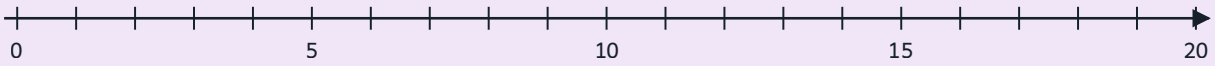
MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES ALGEBRA

HOW TO ANSWER TODAY

- **Find the rule.** Look at how each input changes to its output. Try × first, then + or −.
  3 → 6, 5 → 10, 7 → 14 → rule is × 2

TRY IT ON THE LINE

Use the number line to place, count and round the numbers in the lesson.



1. Mark each number from the lesson with a small cross.
2. Count on (or back) in equal steps and label where you land.
3. For a rounding task, mark the two nearest tens and ring the closer one.

PRACTICE

1

Tadhg's mam adds the same number of grapes to his lunchbox each day, on top of whatever crackers he packs. On Monday he packs **6** crackers and ends up with **17** items; on Tuesday he packs **8** crackers and has **19** items; on Wednesday he packs **1** cracker and has **12** items. What is the rule that takes the number of crackers to the total number of items?

2 Cian saves **€19** in January, **€25** in February, **€31** in March and **€37** in April from his pocket money. He adds the same amount each month. How much will he have saved by the end of May?

> What comes next in the sequence: 19, 25, 31, 37, ___ ?

CHALLENGE

1

Mr Ó Briain pins a number-rule chart on the 4th class noticeboard with three input-output pairs: **8** → **32**, **3** → **17**, and **7** → **29**. What is the rule that turns each input into its output?

2 Tadhg is planting bean seeds in rows in the school polytunnel. The first row has **14** seeds, the next has **11**, then **8**, then **5**. Following the same pattern, how many seeds are in the next row?

> What comes next in the sequence: 14, 11, 8, 5, ___ ?