

Number patterns and sequences: find the rule

MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES

ALGEBRA

★ STRETCH PROBLEMS

- 1 Cian is planting seed trays in the school polytunnel over the spring. Each week there are fewer trays left to plant, and his tally shows 29, 22, 15, 8. If the pattern continues, how many trays are left to plant the next week?
- 2 Cian is counting the sticker spaces left on the class noticeboard each week: 50, 42, 34, 26. If the pattern keeps going, how many spaces are left the following week?
- 3 The class library thermometer chart shows the temperature dropping over four cold mornings: 14, 9, 4, -1 degrees Celsius. The pattern keeps going the same way. What number comes next in the sequence?
- 4 For the World Book Day display, Aoife hangs paper bookmarks in rows on the classroom wall. The rows have 35, 29, 23 and 17 bookmarks, going down by the same amount each time. How many bookmarks are in the next row?
- 5 Cian is playing a number game at the local pool where his score drops in a pattern each turn: 20, 11, 2, -7. What number comes next in the sequence?

● INVESTIGATE

Invent a pattern

Create a number pattern with a clear rule. Write the first six terms, then challenge a partner to find the **rule** and predict the 10th term. Can you also make a growing pattern where the jump gets bigger each time?



x y



ALGEBRA



x y

