

Number patterns and sequences – find the rule

WHAT THIS LESSON TEACHES

The rule of a number pattern is the same amount it goes up or down by each time. You find the rule by looking at the jump between one number and the next.

→ In 3, 6, 9, 12 the step is 3, added each time.

→ 50, 45, 40, 35 counts back in 5s.

MODEL THIS ON THE BOARD

FIND THE NEXT NUMBER AFTER 3, 6, 9

① Look at the jump from 3 to 6. The pattern goes up by 3.

② Check the jump from 6 to 9. It also goes up by 3.

③ The rule is add 3 each time, so the number after 9 is 12.

DISCUSSION STARTER

REFLECT Once you spotted the step, was it easy to keep the pattern going?

ANSWER KEY

Scaffold: visual check on the page

Q1: 25

Q2: 41

Q3: 20

Q4: 14

Q5: 20

a) **Always** — That equal jump is exactly what the rule means.

b) **Always** — The rule stays the same for every step.

c) **Never** — Some patterns count back and go down instead.

d) **Never** — You need at least two numbers to see the size of the jump.

EXTENSION SHEET · STRETCH ANSWERS

S1: $\times 3 + 8$

S2: $+ 11$

S3: $+ 10$

S4: 2

S5: 45