

Solving two-step equations

MODULE 10 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS

ALGEBRA

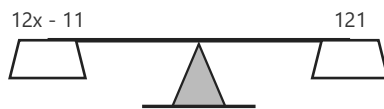
HOW TO ANSWER TODAY

- **Solve in two steps.** Undo the + or – first, then undo the × or ÷.

$$2x + 5 = 13 \rightarrow 2x = 8 \rightarrow x = 4$$

STRETCH PROBLEMS

1

Find x so the scale balances.

On sports day, 5th class need to set out cones for the relay stations. The caretaker has **121** cones in the shed after putting **11** aside for the long jump, and the rest will be shared equally across **12** relay stations as $12x$ cones. If $12x - 11 = 121$ describes the count, how many cones go to each relay station?

2

Find x so the scale balances.

Saoirse packs the same number of grapes into each of **4** small pots in her lunchbox, then adds **9** extra grapes loose on top. Altogether her lunchbox holds **45** grapes. If x is the number of grapes in each pot, solve $4x + 9 = 45$ to find how many grapes are in each pot.

3

Find x so the scale balances.

5th class are heading on a school tour to the Cliffs of Moher. The total cost is **€58**, made up of a **€13** coach charge plus **€9** per pupil for the visitor centre ticket. How many pupils, x , are going on the tour?