

Solving simple equations: find the missing value

MODULE 8 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS ALGEBRA

HOW TO ANSWER TODAY

- **Solve for x.** Do the OPPOSITE operation to both sides. + becomes -; × becomes ÷.

$$x + 7 = 15 \rightarrow x = 15 - 7 = 8 \quad 3x = 21 \rightarrow x = 21 \div 3 = 7$$

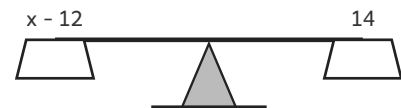
★ STRETCH PROBLEMS

- 1 Tadhg's school is organising a coach trip to the Burren in Clare. The pupils are shared equally across 6 coaches, with 28 pupils on each coach. How many pupils are going on the trip in total?



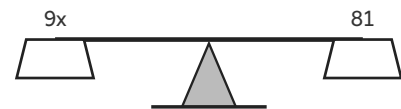
Find x so the scale balances.

- 2 When Ms Murphy takes the roll on Monday morning in 5th class, 12 pupils are out on a hurling match. That leaves 14 pupils in the classroom. If x stands for the total number of pupils on the roll, solve $x - 12 = 14$ to find how many pupils are in 5th class altogether.



Find x so the scale balances.

- 3 Ms Murphy's 5th class collected 81 autumn leaves for an art lesson on the school yard. The leaves are shared equally between 9 groups, with x leaves in each group. Solve $9x = 81$ to find how many leaves each group gets.



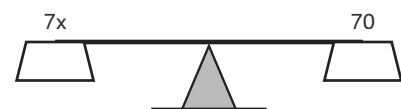
Find x so the scale balances.

- 4 After the club hurling match, Tadhg shares the team's points equally between 3 forwards. Each forward ends up with 5 points. If x is the total points scored by the forwards, then $x \div 3 = 5$. What is x?



Find x so the scale balances.

- 5 On sports day, 5th class scores a total of 70 points across the relay events. Each team scores the same number of points, x, and there are 7 teams, so $7x = 70$. How many points did each team score?



Find x so the scale balances.