# Solving simple equations: find the missing value

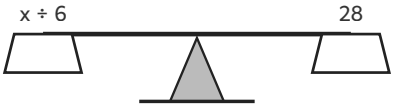
MODULE 8 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS ALGEBRA

**HOW TO ANSWER TODAY**

- **Solve for x.** Do the OPPOSITE operation to both sides. + becomes −; × becomes ÷.
  $x + 7 = 15 \rightarrow x = 15 - 7 = 8$ $3x = 21 \rightarrow x = 21 \div 3 = 7$

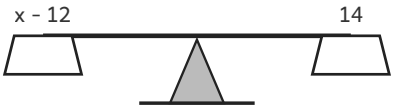
## STRETCH PROBLEMS

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?



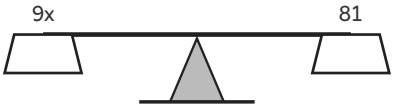

Find x so the scale balances.

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.



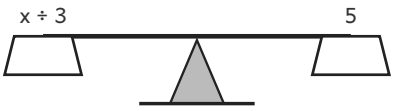

Find x so the scale balances.

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.



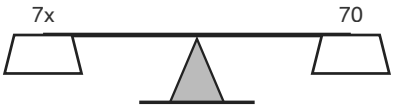

Find x so the scale balances.

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 ÷ **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.