

## Solving one-step equations

MODULE 10 · 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

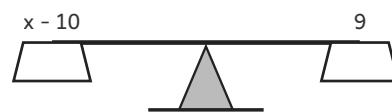
- 1 When Ms Murphy takes the roll on Monday morning in 5th class, 12 pupils are out on a hurling match. That leaves 14 pupils in the classroom. If  $x$  stands for the total number of pupils on the roll, solve  $x - 12 = 14$  to find how many pupils are in 5th class altogether.

Find  $x$  so the scale balances.

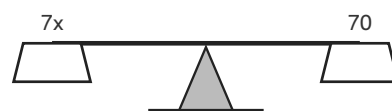
- 2 Mr Ó Briain is counting worksheets in the photocopier room for tomorrow's maths lesson. After he hands 8 worksheets to the 5th class teacher next door, he has 14 worksheets left in his pile. If  $x$  is the number of worksheets he started with, then  $x - 8 = 14$ . What is  $x$ ?

Find  $x$  so the scale balances.

- 3 The 5th class library had  $x$  books on the shelves on Monday morning. During the week, 10 books were borrowed and the shelves were left with 9 books. How many books were on the shelves on Monday?

Find  $x$  so the scale balances.

- 4 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.

- 5 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.