

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



Find x so the scale balances.

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?

2



Find x so the scale balances.

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?

3



Find x so the scale balances.

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.