

Equality and the balance

MODULE 8 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS

ALGEBRA

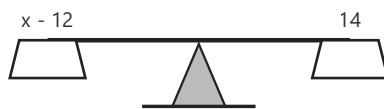
HOW TO ANSWER TODAY

- **Solve for x.** Do the OPPOSITE operation to both sides. + becomes -; $\times$ becomes $\div$.

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

STRETCH PROBLEMS

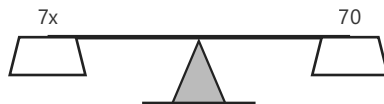
1



Find x so the scale balances.

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.

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.

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?