

Finding the missing number ($\square + 5 = 12$)

MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES

ALGEBRA

HOW TO ANSWER TODAY

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

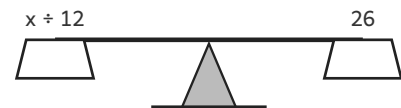
$$x + 7 = 15 \rightarrow x = 15 - 7 = 8 \quad 3x = 21 \rightarrow x = 21 \div 3 = 7$$

★ STRETCH PROBLEMS

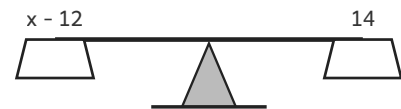
- 1 Cian watches the bird feeder at the classroom window. After **12** birds fly away, there are **12** birds left. If x stands for how many birds were there at the start, then $x - 12 = 12$. How many birds were there to begin with?

Find x so the scale balances.

- 2 On the sponsored cycle, Tadhg rides a number of laps of the cycle path and divides them equally across **12** days. He cycles **26** laps each day. If x is the total number of laps, then $x \div 12 = 26$. What is x ?

Find x so the scale balances.

- 3 Mr Ó Braonáin has some worksheets in the photocopier tray. After he takes out **12** for his own class, there are **14** left for the other teachers. If x stands for the number of worksheets he started with, then $x - 12 = 14$. How many worksheets did he start with?

Find x so the scale balances.

- 4 On Monday morning in 5th class, some pupils are out sick. When **10** pupils have gone home early, there are **5** pupils left in the room. If x stands for how many pupils started the day, then $x - 10 = 5$. How many pupils started the day?

Find x so the scale balances.

- 5 The classroom store has **92** pencils packed equally into **4** boxes. Let x be the number of pencils in one box, so $4x = 92$. How many pencils are in each box?

Find x so the scale balances.