

Turning word problems into number sentences

MODULE 10 · ALGEBRA — PATTERNS, RULES AND NUMBER SENTENCES

ALGEBRA

HOW TO ANSWER TODAY

- **Solve for x.** Do the OPPOSITE operation to both sides. + becomes −; × becomes ÷.

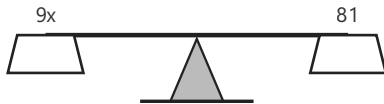
$$x + 7 = 15 \rightarrow x = 15 - 7 = 8 \quad 3x = 21 \rightarrow x = 21 \div 3 = 7$$

- **Function machine.** Do EACH step of the rule in order to the input.

$$\text{Rule } \times 4 + 2, \text{ input } 5 \rightarrow 5 \times 4 = 20, + 2 = 22$$

STRETCH PROBLEMS

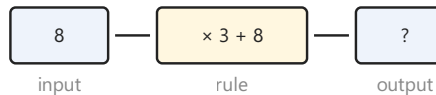
1



Find x so the scale balances.

Mr Ó Briain pins up **81** homework stickers on the classroom noticeboard, arranged in **9** equal rows with x stickers in each row. Solve $9x = \mathbf{81}$ to find how many stickers are in each row.

2



In 4th class maths, Aoife draws a function machine in her copybook with the rule $\times \mathbf{3} + \mathbf{8}$. She puts the number **8** into the machine. What number comes out?