

Writing expressions from word situations

MODULE 10 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS

ALGEBRA

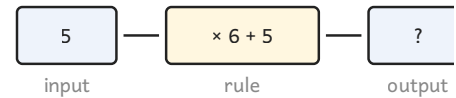
HOW TO ANSWER TODAY

- **Function machine.** Do EACH step of the rule in order to the input.
- **Letter expressions.** A letter stands for a number. Swap the letter for its value, then work out the answer.

If $n = 3$, then $2n + 5 = 2 \times 3 + 5 = 11$

★ STRETCH PROBLEMS

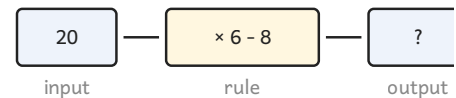
- 1 Aoife is baking barmbrack for Halloween weekend. She uses a function machine with the rule $\times 6 + 5$ to find how many raisins she needs. If the input is 5, what is the output?



- 2 Róisín packs snacks for the coach trip to the Burren in Clare. She fills 2 lunchboxes, and each lunchbox holds n apples plus 3 bananas. If $n = 2$, what is the value of $2(n + 3)$?

- 3 Aoife helps line up 6th class at the door before going to the yard. There are 5 groups of n pupils, plus 2 more waiting, then n pupils leave to collect the hi-vis vests. If $n = 7$, what is the value of $5n + 2 - n$?

- 4 Saoirse is cutting paper stars to decorate the classroom for World Book Day. She uses a function machine with the rule $\times 6 - 8$. When the input is 20, what is the output?



- 5 Aoife watches the bird-feeder at the classroom window. She works out the seeds taken with the expression $4(n + 1) - 3$, where n is the number of robins that visit. If $n = 2$, what is the value of $4(n + 1) - 3$?