Continuing a pattern — what comes next?

MODULE 8 · ALGEBRA — PATTERNS, EXPRESSIONS AND EQUATIONS ALGEBRA

STRETCH PROBLEMS

1. Oisín brings a bag of bread to the pond in Wicklow to feed the ducks. After feeding them for **1 minute** he has **14** pieces left, after **2 minutes** he has **9** pieces, after **3 minutes** he has **4** pieces, and after **4 minutes** he has **-1** pieces (he had to borrow one from his sister). Following the same pattern, how many pieces will he have after **5 minutes**?

   > What comes next in the sequence: 14, 9, 4, -1, ___ ?

2. The 5th class library tracks how many books are borrowed each week. The first four weeks show **5**, **15**, **25** and **35** books borrowed. If the pattern continues, how many books will be borrowed in the next week?

   > What comes next in the sequence: 5, 15, 25, 35, ___ ?

3. The 5th class library rota lists the page numbers each pupil reads aloud on Mondays: **23**, **33**, **43**, **53**, ___ . The pattern continues in the same way. What page number comes next on the rota?