Perimeter of rectangles and regular shapes

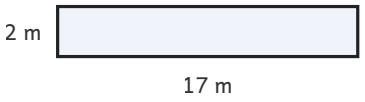
MODULE 5 · AREA, PERIMETER AND VOLUME MEASURES

HOW TO ANSWER TODAY

- **Perimeter.** Perimeter is the distance ALL the way round. Rectangle: (length + width) × 2.
  12 m by 8 m → (12 + 8) × 2 = 40 m
- **Polygon perimeter.** Regular = all sides equal. Perimeter = number of sides × side length.
  Regular pentagon, side 4 cm → 5 × 4 = 20 cm

STRETCH PROBLEMS

1. Cian marks out a rectangular stage for the school play. It measures **17 m** along the front and **2 m** deep. How long is the tape he needs to run around the whole edge of the stage?



2. During STEM week, Oisín builds a square base for his model bridge using card. Each side of the square measures **11 cm**. What is the perimeter of the base?

3. The caretaker paints a rectangular games area on the school yard that measures **10 m** by **9 m**. Cian wants to put a coloured line all the way around the edge. What is the perimeter of the games area?

4. The 4th class garden club marks out a rectangular vegetable patch in the school orchard. The patch measures **16 m** along one side and **8 m** along the other. They want to put a low fence right around the edge. What is the perimeter of the patch?

5. Cian is building a triangle-shaped raised bed for herbs in the school garden. Each of the **3** sides measures **5 cm** on his plan. What is the perimeter of the raised bed on the plan?

INVESTIGATE

Fence the biggest garden

You have **24 m** of fencing for a rectangular garden. Sketch at least four different rectangles that use all 24 m of fence. Find the **area** of each. Which shape gives the most growing space, and which the least? What do you notice?