Creating simple scale drawings

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE SHAPE & SPACE

HOW TO ANSWER TODAY

- **Scale drawing.** Scale 1:N means 1 unit on the drawing = N units in real life. Multiply the drawing length by N.
- **Quadrants.** Q1 is top-right; numbering goes ANTICLOCKWISE. A point on an axis is on the axis, not in a quadrant.

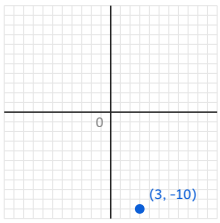
  (3, 5) → Q1 (−2, 1) → Q2 (0, 4) → on the y-axis

STRETCH PROBLEMS

1. In art class, Cian draws a scale plan of the school yard at a scale of **1:1000**. One side of the yard measures **5 cm** on his drawing. What is the real length of that side?

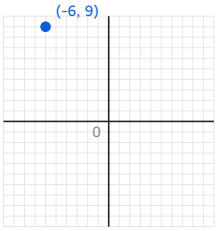
2. Aoife is making a scale drawing of a model bridge for STEM week. The scale is **1:50** and one beam on the drawing measures **2 cm**. What is the real length of that beam?

3. 6th class have drawn a plan of the school on grid paper. One corner of the yard is marked at the point (**3** , - **10**). Which quadrant contains that point?



4. Méabh is drawing a scale plan of the school garden at **1:50** for a 6th class project. One edge of the vegetable patch measures **5 cm** on her plan. What is the real length of that edge?

5. Mr Ó Sé draws a coordinate map of the school grounds for sports day, with the flagpole at the origin. The first-aid tent is marked at the point (- **6** , **9**). Which quadrant of the map contains the first-aid tent?



INVESTIGATE

Map your classroom

Measure your classroom and draw it as a **scale drawing**. Choose a scale that makes it fit neatly on the page. Mark the door, windows and your own desk in the right places.

SHAPE & SPACE