

The full four-quadrant co-ordinate plane

WHAT THIS LESSON TEACHES

The origin (0, 0) is where the axes cross at the centre. Points use signs to show which of the four quadrants they are in.

→ On a map of Ireland with the origin at Athlone, (5, 2) is in quadrant I.

→ (-3, 4) is in quadrant II.

MODEL THIS ON THE BOARD

IDENTIFYING THE QUADRANT FOR A POINT

- 1 Look at the signs of the x and y values.
- 2 Both positive means quadrant I.
- 3 x negative and y positive means quadrant II.

ANSWER KEY

Scaffold: visual check on the page

Q1: Quadrant I

Q2: Quadrant II

Q3: on the y-axis (no quadrant)

Q4: IV

a) Always — Both coordinates positive places it in quadrant I.

b) Always — Zero in one coordinate means it lies on an axis.

c) Always — Quadrant III is defined by both coordinates being negative.

d) Always — Positive x and negative y places it in quadrant IV.

EXTENSION SHEET · STRETCH ANSWERS

S1: 9 units

S2: (-6, 4) → Q2

S3: 11 units

S4: (8, -4) → Q4

S5: 9 units