

Plotting and reading points with negative co-ordinates

WHAT THIS LESSON TEACHES

A co-ordinate with a minus sign tells you to travel the opposite way from zero - left along the x-axis or down the y-axis.

→ For $(-5, 2)$ you go five squares LEFT then two squares UP.

→ A dot four left and one down from zero reads as $(-4, -1)$.

MODEL THIS ON THE BOARD

PLOTTING A MIXED-SIGN POINT

- 1 Start at $(0, 0)$ on the grid.
- 2 For the x number -5 move LEFT five squares.
- 3 For the y number 2 move UP two squares.
- 4 Mark the point and label it $(-5, 2)$.

ANSWER KEY

Scaffold: visual check on the page

Q1: $(-7, 8)$

Q2: $(-4, 3)$

Q3: No

a) Always — Negative x means left from zero.

b) Never — They use opposite signs so land in different quadrants.

c) Sometimes — Only when the point has negative coordinates.

d) Always — Points can lie in the bottom-left quadrant.

EXTENSION SHEET · STRETCH ANSWERS

S1: 4 units

S2: $(4, -4) \rightarrow Q4$

S3: 8 units

S4: $(-6, 9) \rightarrow Q2$