

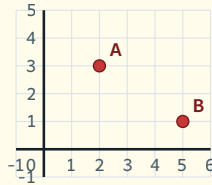
# Plotting points in the first quadrant

MODULE 8 · LOCATION, TRANSFORMATIONS AND SCALE REVIEW

Co-ordinates fix a point with an ordered pair  $(x, y)$  — across first, then up. The first quadrant uses positive numbers only.

→  $(3, 2)$  is 3 right and 2 up from the origin  $(0, 0)$ .

## PLOT A $(2, 3)$ AND B $(5, 1)$



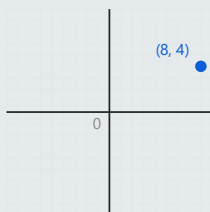
- 1 For A  $(2, 3)$ : start at the origin, go **2 right then 3 up**.
- 2 For B  $(5, 1)$ : **5 right then 1 up**.
- 3 Across before up —  $(x, y)$ .

## HOW TO ANSWER TODAY

- **Quadrants.** Q1 is top-right; numbering goes ANTICLOCKWISE. A point on an axis is on the axis, not in a quadrant.  
 $(3, 5) \rightarrow$  Q1 ·  $(-2, 1) \rightarrow$  Q2 ·  $(0, 4) \rightarrow$  on the y-axis
- **Distance on an axis.** If the two points share x or y, subtract the OTHER coordinates. Answer is in units.  
 $(2, 5)$  and  $(2, 9)$  share  $x=2 \rightarrow 9 - 5 = 4$  units

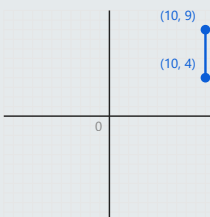
## WARM-UP

1



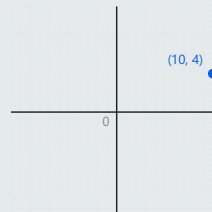
During PE in the school yard, Tadhg's 5th class marks out a coordinate grid with chalk and places cones at different points. Tadhg's cone sits at the point  $(8, 4)$  on the grid. Which quadrant contains his cone?

2



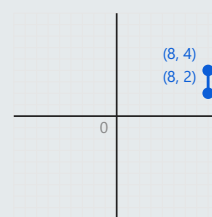
Tadhg is mapping the school orchard on grid paper for his 5th class project. He marks an apple tree at  $(10, 4)$  and a pear tree at  $(10, 9)$ . What is the distance between the two trees on the grid?

3



On their nature walk, 5th class plotted bird sightings on a grid map of the school grounds. Eoin spotted a robin at the point  $(10, 4)$  on the grid. Which quadrant of the grid contains his sighting?

4



Tadhg sketches a coordinate map of the Cumann na mBunscol pitch on grid paper. He marks the corner flag at  $(8, 4)$  and the goalpost at  $(8, 2)$ . What is the distance between these two points on his map?