

Coordinate Quest

Plot points, read axes, and map locations.

GRADE 5 • MA.5.GR.4.1

MA.5.GR.4.1 "Identify the origin and axes in the coordinate system. Plot and label ordered pairs in the first quadrant of the coordinate plane."

NAME _____

DATE _____

MAP THE PLANE

The origin is (0,0), where the horizontal x-axis and vertical y-axis meet. For an ordered pair (x, y), start at the origin, move x units right, then move y units up to plot a point in the first quadrant.

WORKED EXAMPLE

Plot and label R(8,9).

1. Find the origin, where the two axes cross.
2. Move 8 units right on the x-axis.
3. Move 9 units up on the y-axis.
4. Mark the point and write R beside it.

Answer: R is plotted at (8,9).

PRACTICE 6 problems

- 1** On a coordinate grid, plot and label A(2,5).

ANSWER _____

- 2** On a coordinate grid, plot and label B(6,3).

ANSWER _____

- 3** Start at the origin. Move 4 units right and 1 unit up. Plot and label point C. Write its ordered pair.

ANSWER _____

- 4** Point D is 5 units right and 7 units up from the origin. Plot and label D. Write its ordered pair.

ANSWER _____

- 5** Plot E(0,4). Is point E on an axis? Name the axis.

ANSWER _____

- 6** Plot F(3,0). Is point F on an axis? Name the axis.

ANSWER _____

APPLY IT Show your work

- 1** In a game design club, a treasure chest is at $T(4,6)$ on a coordinate map. Plot and label T. From the origin, how many units do you move right and how many units do you move up?

WORK SPACE

ANSWER _____

- 2** A school garden map shows a water station at $W(2,3)$ and a tool shed at $S(6,3)$. Plot and label both locations. Which location is farther right? Explain using the ordered pairs.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Plot $M(1,2)$, $N(1,6)$, and $O(7,6)$. These are three corners of a rectangle with sides parallel to the axes. What ordered pair should point P have to complete the rectangle? Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	On a coordinate grid, plot and label A(2,5).	A is plotted at (2,5).
2	On a coordinate grid, plot and label B(6,3).	B is plotted at (6,3).
3	Start at the origin. Move 4 units right and 1 unit up. Plot and label point C. Write its ordered pair.	C(4,1)
4	Point D is 5 units right and 7 units up from the origin. Plot and label D. Write its ordered pair.	D(5,7)
5	Plot E(0,4). Is point E on an axis? Name the axis.	Yes. E is on the y-axis.
6	Plot F(3,0). Is point F on an axis? Name the axis.	Yes. F is on the x-axis.

PART 2 • APPLY IT

1. **Move 4 units right and 6 units up.** The first number tells the horizontal move right. The second number tells the vertical move up.
2. **The tool shed, S(6,3), is farther right because 6 is greater than 2.** Compare the x-coordinates. S has an x-coordinate of 6, while W has an x-coordinate of 2.

CHALLENGE

P(7,2). Point P has the same x-coordinate as O and the same y-coordinate as M.

Accept accurately plotted and labeled points in the correct locations on the grid. For the challenge, accept an explanation that identifies matching horizontal and vertical coordinates.