

Grid Quest

Plot, read, and use points on a coordinate plane.

GRADE 5 • 5.G.A

CCSS.Math.Content.5.G.A "Graph points on the coordinate plane to solve real-world and mathematical problems."

NAME _____

DATE _____

PLOT POINTS IN ORDER

An ordered pair is written (x, y) . Start at the origin, move x units right, then move y units up, and mark the point.

WORKED EXAMPLE

Plot point J at $(11, 12)$.

1. Start at the origin, $(0, 0)$.
2. Move 11 units right.
3. Move 12 units up.
4. Mark the point and label it J.

Answer: J is at $(11, 12)$.

PRACTICE 6 problems

- 1** Use the coordinate grid. Plot point A at $(2, 7)$.

ANSWER _____

- 2** Point B is at $(5, 9)$. What is the x-coordinate of B?

ANSWER _____

- 3** A point is 4 units right and 1 unit up from the origin. Write its ordered pair.

ANSWER _____

- 4** Which point is farther right, P $(3, 8)$ or Q $(7, 8)$?

ANSWER _____

- 5** Plot R $(6, 2)$ and S $(6, 10)$. Do the points line up horizontally or vertically?

ANSWER _____

- 6** Point T is at $(9, 4)$. How many units right and how many units up do you move from the origin to plot T?

ANSWER _____

APPLY IT Show your work

- 1** On a skate park map, the snack stand is at $(1, 6)$ and the water fountain is at $(8, 6)$. Plot both points. How many units apart are the two places?

WORK SPACE

ANSWER _____

- 2** In a video game map, a player is at $(7, 2)$ and a treasure chest is at $(7, 9)$. Plot both points. How many units up must the player move to reach the chest?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Three vertices of a rectangle are $M(2, 2)$, $N(2, 8)$, and $O(9, 2)$. The sides of the rectangle are horizontal and vertical. What are the coordinates of the fourth vertex? Explain how you know.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Use the coordinate grid. Plot point A at (2, 7).	A is at (2, 7).
2	Point B is at (5, 9). What is the x-coordinate of B?	5
3	A point is 4 units right and 1 unit up from the origin. Write its ordered pair.	(4, 1)
4	Which point is farther right, P(3, 8) or Q(7, 8)?	Q(7, 8)
5	Plot R(6, 2) and S(6, 10). Do the points line up horizontally or vertically?	Vertically
6	Point T is at (9, 4). How many units right and how many units up do you move from the origin to plot T?	9 units right and 4 units up

PART 2 • APPLY IT

- 7 units** Both points have a y-coordinate of 6, so they are on the same horizontal line. Count from $x = 1$ to $x = 8$, which is 7 units.
- 7 units up** Both points have an x-coordinate of 7, so they are on the same vertical line. Count from $y = 2$ to $y = 9$, which is 7 units up.

CHALLENGE

(9, 8). The fourth vertex must have the same x-coordinate as O, 9, and the same y-coordinate as N, 8.

Accept ordered pairs only when the x-coordinate is written first and the y-coordinate is written second. For graphing items, accept a correctly placed and clearly labeled point on the coordinate grid.