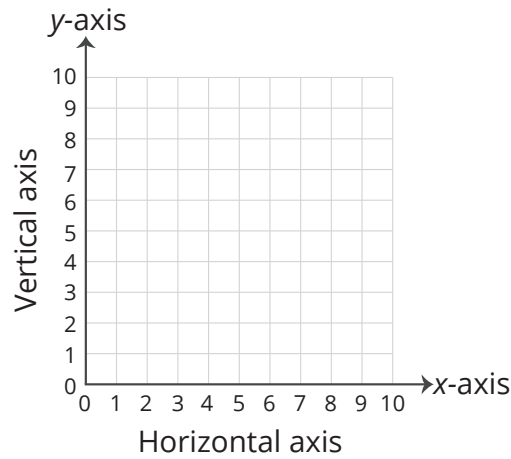


# 1 Coordinate Grids

## What Is a Coordinate Grid?

A coordinate grid is a lattice of vertical and horizontal lines. A horizontal number line (called the horizontal axis or the *x*-axis) and a vertical number line (called the vertical axis or the *y*-axis) meet at the origin, or (0, 0).

At this grade level, only positions to the right of the vertical axis and above the horizontal axis are used.



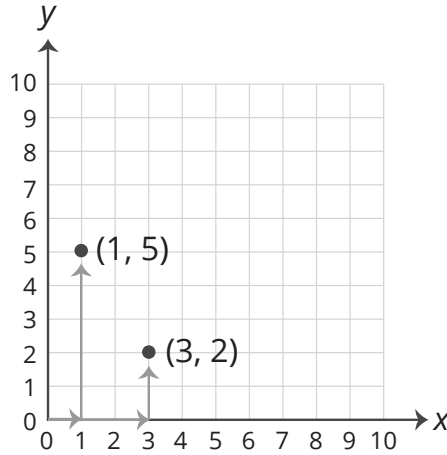
## Naming a Point on the Grid

Locations on a coordinate grid are identified by their horizontal and vertical distance from the origin.

Points are named using an ordered pair in the form (horizontal coordinate, vertical coordinate). The first (horizontal) coordinate tells how far the point is to the right of the vertical axis. The second (vertical) coordinate tells how far the point is above the horizontal axis.

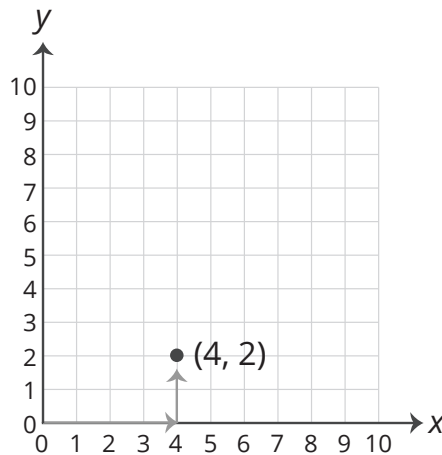
### Naming a Point on the Grid (continued)

The points  $(3, 2)$  and  $(1, 5)$  are marked below. The “3” and “1” are the horizontal coordinates, and the “2” and “5” are the vertical coordinates.



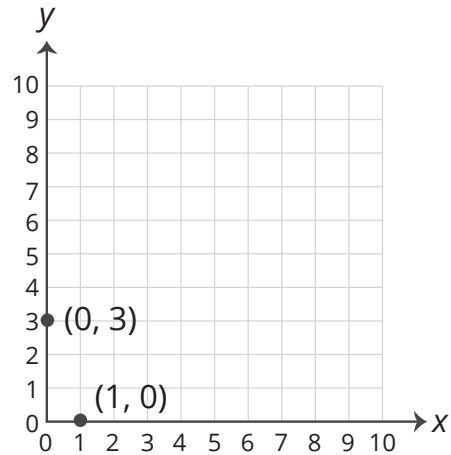
### Plotting a Point on the Grid

When you plot a point, for example  $(4, 2)$ , on a coordinate grid, start at the origin and go 4 to the right and 2 up, in that order.



**Plotting a Point on the Grid (continued)**

If one of the coordinates is 0, the point will be on an axis. For example, (1, 0) is on the horizontal axis and (0, 3) is on the vertical axis.



**Definitions**

**coordinate grid:** a grid formed by two intersecting number lines, used for creating graphs

**plot:** to record a point on a coordinate grid

**horizontal axis (or x-axis):** a horizontal reference line on a graph or coordinate grid

**ordered pair (coordinates):** a pair of numbers that describe the location of a point on a coordinate grid; for example, (3, 5) describes a point that is 3 to the right on the x-axis and 5 up on the y-axis

**origin:** the point on a coordinate grid where both axes intersect at 0

**vertical axis (or y-axis):** a vertical reference line on a graph or coordinate grid

**horizontal coordinate (x-value, or x-coordinate):** the number that tells how far a point is from 0 horizontally on a coordinate grid; for example, for the point (4, 2), 4 is the horizontal coordinate

**vertical coordinate (y-value, or y-coordinate):** the number that tells how far a point is from 0 vertically on a coordinate grid; for example, for the point (4, 2), 2 is the vertical coordinate

