

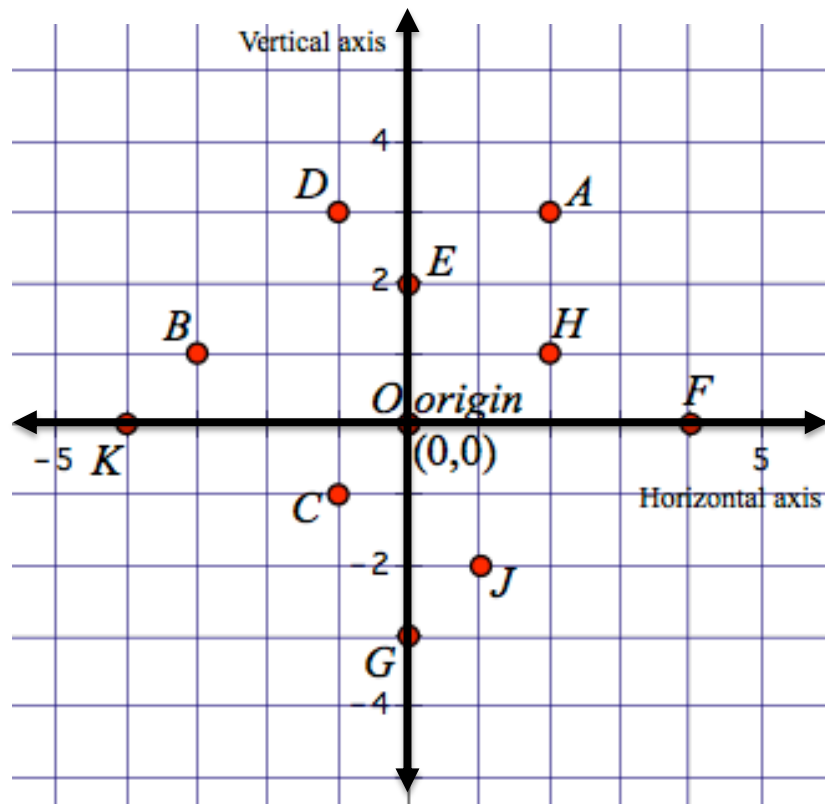
Resource Coordinate Plane

Vocabulary

Axes: A coordinate plane has two axes that measure distance in two dimensions. The *horizontal axis* goes from left to right. In previous classes, you may have called this the *x-axis*. The *vertical axis* goes up and down. This is sometimes called the *y-axis*. The axes are two number lines that create a grid on the coordinate plane. Note: *Axis* is singular and *axes* is plural.

Origin: The point at which the two axes intersect or cross is called the origin. This point represents 0 for both axes. To the left of this point, the horizontal axis is negative; to the right, it is positive. Below the origin, the vertical axis is negative; above the origin, it is positive. You can see this in the numbers along each axis above. These numbers are called the *scale*.

Ordered pair: Each location or point on the coordinate plane is defined by an ordered pair. You can think of this as the “address” of a point. Ordered pairs are written in a set of parentheses. They are called *ordered pairs* because they must contain two numbers and the order of the numbers is important. The first number is the distance and direction going left or right from the origin, and the second number is the distance and direction going up or down. The ordered pair for the origin is $(0, 0)$.



Follow these steps to find the point represented by the ordered pair (2, 3):

- Step 1** First, think about the address of the point. If this were a street address, the ordered pair tells you to walk 2 blocks horizontally in the positive direction (right) and then walk 3 units vertically in the positive direction (up).
- Step 2** Start at the origin. Go 2 units to the right because this is the positive side of the horizontal axis.
- Step 3** Go 3 units up.

Point A on the graph is the point (2, 3). A few other examples from the graph are given below:

Point B: $(-3, 1)$

Point E: $(0, 2)$

Point F: $(4, 0)$

The Khan Academy website has free videos and practice problem sets that you can use for additional review:

- https://www.khanacademy.org/math/trigonometry/graphs/graphing_coordinates/v/plot-ordered-pairs
- https://www.khanacademy.org/math/basic-geo/basic-geo-coord-plane/coordinate-plane-4-quad/e/identifying_points_1