

Understand the Coordinate Plane



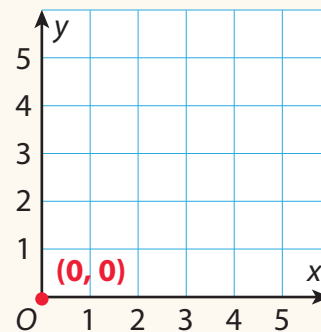
Dear Family,

This week your child is exploring the coordinate plane.

Your child is learning to use ordered pairs of numbers to find a location on the coordinate plane and to identify locations on the coordinate plane with ordered pairs.

The **coordinate plane** at the right has two axes, the x -axis and the y -axis.

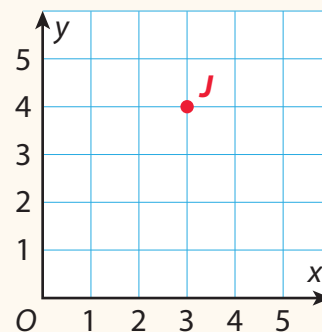
- The **x -axis** is a horizontal number line.
- The **y -axis** is a vertical number line.
- The axes intersect, or meet, at a point called the **origin**.



You can find any point on the coordinate plane if you know the x -coordinate and y -coordinate of the point. These coordinates are given in the **ordered pair** (x, y) . The ordered pair $(0, 0)$ tells where the origin is located. It marks a point on the coordinate plane. The point is located at 0 on the x -axis and 0 on the y -axis.

The ordered pair $(3, 4)$ identifies point J on the coordinate plane at the right. Point J has an x -coordinate of 3 and a y -coordinate of 4. To locate point J , you start at the origin, move right 3 units on the x -axis, and move up 4 units.

Invite your child to share what he or she knows about the coordinate plane by doing the following activity together.



ACTIVITY THE COORDINATE PLANE



Do this activity with your child to understand the coordinate plane.

Materials number cube

Work with your child to use ordered pairs to locate points in the coordinate plane.

- One person rolls a number cube to determine the x -coordinate of a point. The other person rolls the number cube to determine the y -coordinate.
- Write the coordinates in the table below in the row for point A . This is the ordered pair for point A .
 - *Example:* Roll a 2 and a 5 with the number cube. Write 2 in the x column and 5 in the y column of the table. The ordered pair for point A is $(2, 5)$.
- Use the ordered pair to locate the point on the coordinate plane below. Describe where you begin, how many units you move, and in which direction you move to locate the point. Mark and label the point as point A .
- Repeat the activity three more times to determine coordinates for points B , C , and D .
- Look at the points on the coordinate plane and identify any patterns that you see. (For example, the points might form a line.) Talk about the location of one point in terms of another point. (For example, point C might be 2 units to the right and 3 units up from point B .) What other things do you notice about the points?

Point	x	y
A		
B		
C		
D		

