Math in Focus — Singapore Math by Marshall Cavendish

Family Letters and Activities

Chapter 9 The Coordinate Plane

Dear Family,

In this chapter, your student will learn to work with figures on a coordinate plane. Some of the skills your student will practice are:

- *finding lengths of segments in a coordinate plane*
- *identifying figures formed by joining points on a coordinate plane*
- *graphing equations in a coordinate plane*

Activity

Graphing points, lines, and geometric figures are important tools that your student will use in many math classes. You can help your student practice these skills with this activity.

- Use a piece of graph paper. Draw and label a pair of axes and mark an area in the first quadrant that is 6 units by 6 units.

- Have your student draw any square whose vertices are inside the 6 × 6 area, as shown below. Discuss how you know that the figure is a square. Write the coordinates of the vertices. Then draw a different square yourself, and have your student write the coordinates of its vertices.
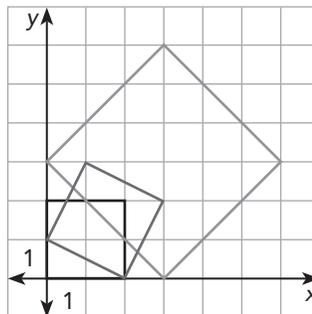
- Continue taking turns drawing squares inside the 6 × 6 area.

  Turn 1: (0, 0), (0, 2), (2, 2), (2, 0)
  Turn 2: (0, 1), (1, 3), (3, 2), (2, 0)
  Turn 3: (0, 3), (3, 6), (6, 3), (3, 0)

- How many different squares did you find?

Vocabulary to Practice

Two intersecting lines indicate the **coordinate plane**. The **x-axis** is horizontal and the **y-axis** is vertical. They intersect at a point called the **origin**.

Any point in the plane can be described by two **coordinates**, such as (4, 7). The **x-coordinate** is 4 and the **y-coordinate** is 7.

The **x**-coordinate gives the horizontal distance from the origin to the point, and the **y**-coordinate gives the vertical distance from the origin to the point.

The coordinates are also called an **ordered pair** of numbers.

Online Resources

For additional Parent Resources *my.hrw.com*