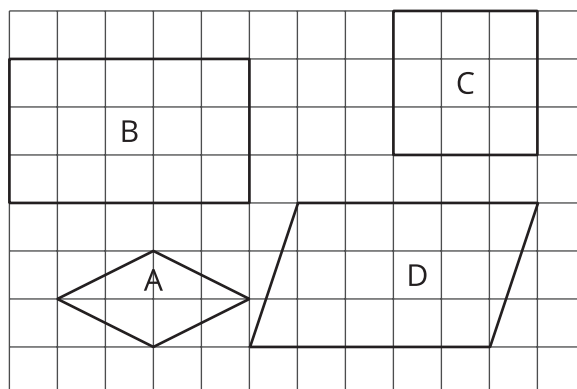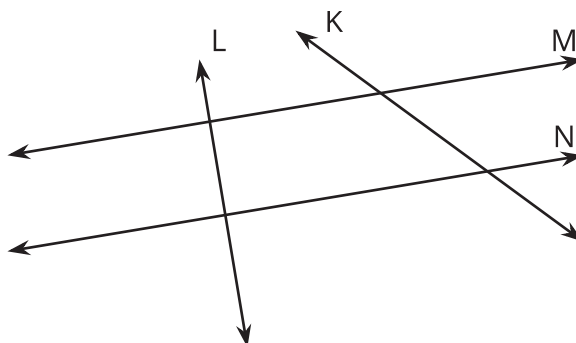# Section A: Practice Problems

1. **Pre-unit**

a. Which shapes are rectangles? _____

b. Which shapes are rhombuses? _____

c. Which shapes are squares? _____
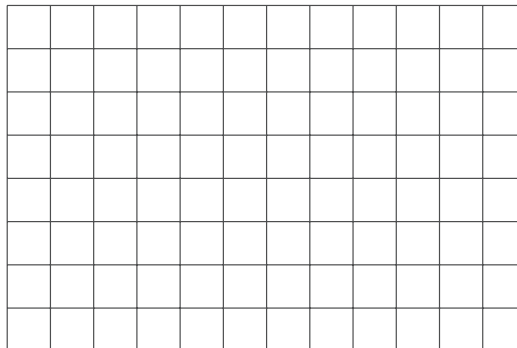
2. **Pre-unit**

a. Name two lines in the drawing that are parallel._____

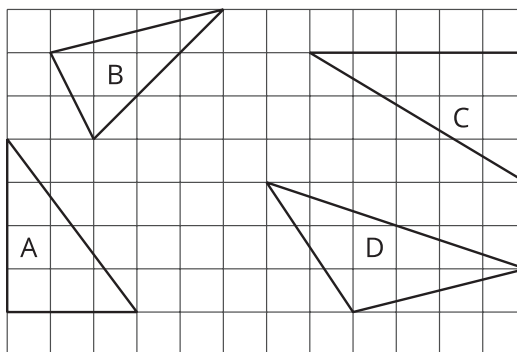b. Name two lines in the drawing that are perpendicular._____

3. **Pre-unit**

   a. Draw a rectangle on the grid.
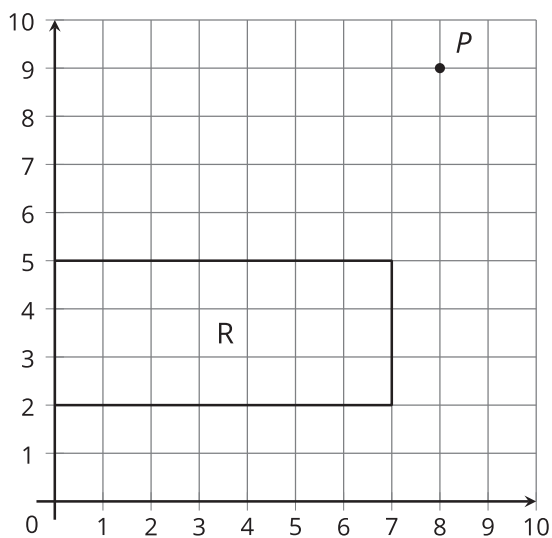
   b. What is the perimeter of the rectangle?

4. **Pre-unit**

   Which of the triangles are right triangles?

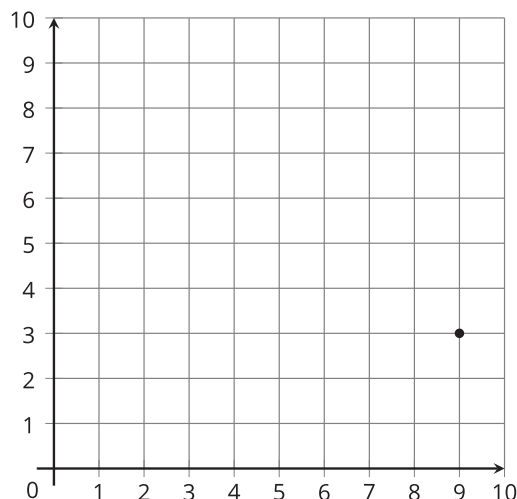5. a. How would you describe the point labeled P?

    b. How would you describe the rectangle R?

(From Unit 7, Lesson 1.)

6. a. What are the coordinates of the point on the grid?

b. Locate and label point A with coordinates $(7, 1)$, point B with coordinates $(2, 8)$, and point C with coordinates $(6, 6)$.
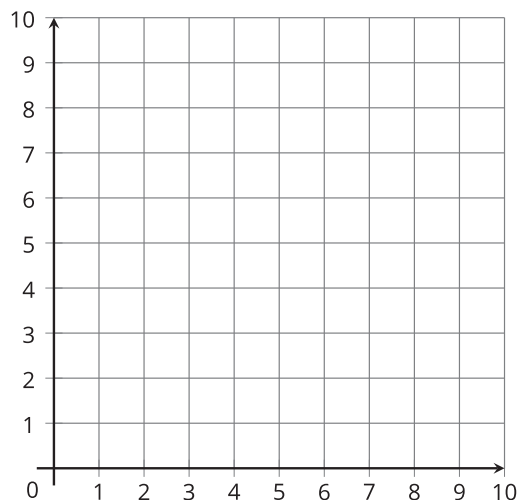
(From Unit 7, Lesson 2.)

7. a. Fill in the blanks with 4 different numbers between 0 and 10 and plot the points on the graph.

(_____, 0) (_____, 0)

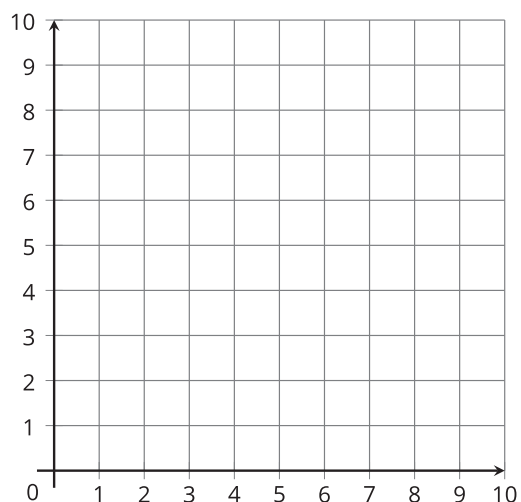(_____, 0) (_____, 0)

What do you notice about the points?

b. Locate the points $(1, 1)$, $(2, 2)$, $(3, 3)$, and $(4, 4)$ on the graph. What do you notice about the points?
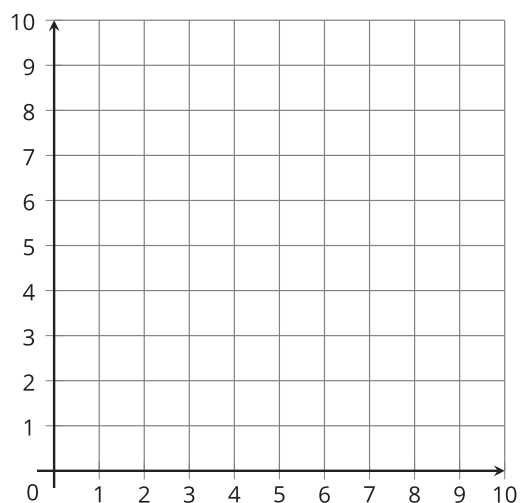
(From Unit 7, Lesson 3.)

8. **Exploration**

a. One of the Illustrative Math characters describes their first initial like this:
"Start at $(2, 4)$ and go to $(2, 8)$, then go to $(3, 6)$, then to $(4, 8)$, and to $(4, 4)$."
Which character is it?

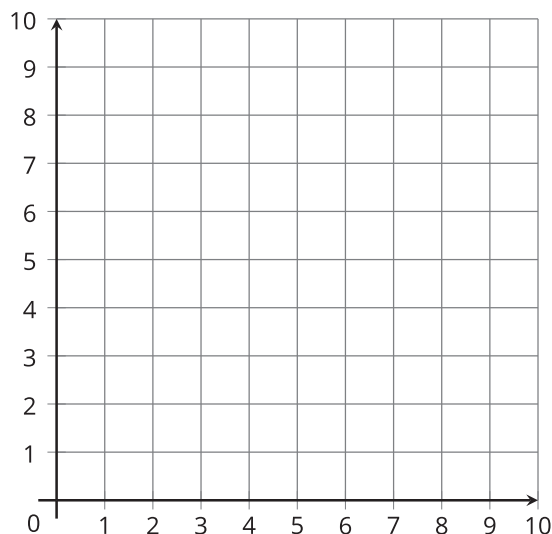b. Describe, using coordinates, how to trace a letter from your name.

9. **Exploration**

Work with a partner.

Student 1:

Draw a rectangle on the coordinate plane. Make sure the area of your rectangle is at least 20 square units. Don't show your partner your rectangle.

Student 2:

Your goal is to figure out which rectangle your partner drew. You name points in the coordinate plane and your partner will tell you whether the point is on their rectangle.