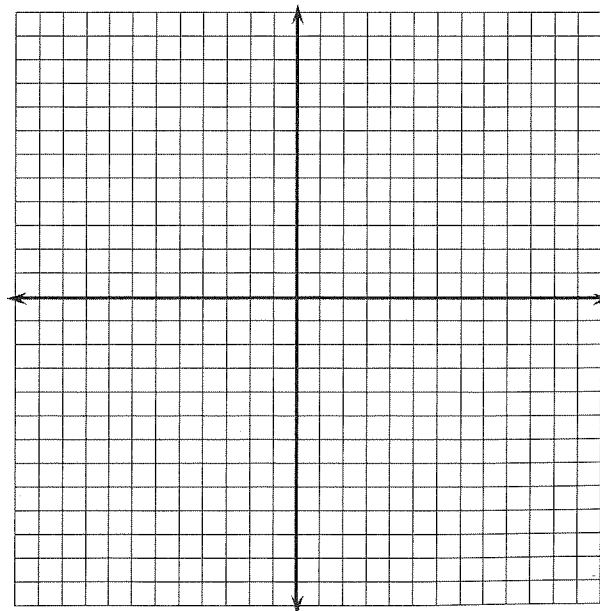


## Lesson Summary

- The  $x$ -axis and  $y$ -axis of the coordinate plane are number lines that intersect at zero on each number line.
- The axes partition the coordinate plane into four quadrants.
- Points in the coordinate plane lie either on an axis or in one of the four quadrants.

## Problem Set

1. Name the quadrant in which each of the points lies. If the point does not lie in a quadrant, specify which axis the point lies on.
  - a.  $(-2, 5)$
  - b.  $(8, -4)$
  - c.  $(-1, -8)$
  - d.  $(9.2, 7)$
  - e.  $(0, -4)$
2. Jackie claims that points with the same  $x$ - and  $y$ -coordinates must lie in Quadrant I or Quadrant III. Do you agree or disagree? Explain your answer.
3. Locate and label each set of points on the coordinate plane. Describe similarities of the ordered pairs in each set, and describe the points on the plane.
  - a.  $\{(-2, 5), (-2, 2), (-2, 7), (-2, -3), (-2, -0.8)\}$
  - b.  $\{(-9, 9), (-4, 4), (-2, 2), (1, -1), (3, -3), (0, 0)\}$
  - c.  $\{(-7, -8), (5, -8), (0, -8), (10, -8), (-3, -8)\}$



4. Locate and label at least five points on the coordinate plane that have an  $x$ -coordinate of 6.
- What is true of the  $y$ -coordinates below the  $x$ -axis?
  - What is true of the  $y$ -coordinates above the  $x$ -axis?
  - What must be true of the  $y$ -coordinates on the  $x$ -axis?

