Lesson 14 & 15: Ordered Pairs & Coordinate Grids

Classwork

Exercises

The first coordinates of the ordered pairs represent the numbers on the line labeled x, and the second coordinates represent the numbers on the line labeled y.

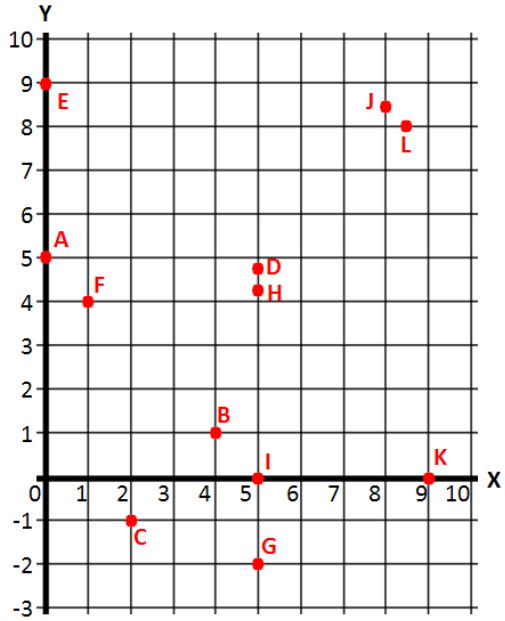
1. Name the letter from the grid below that corresponds with each ordered pair of numbers below.

   a. $(1, 4)$ b. $(0, 5)$

   c. $(4, 1)$ d. $(8.5, 8)$

   e. $(5, -2)$ f. $(5, 4.2)$

   g. $(2, -1)$ h. $(0, 9)$



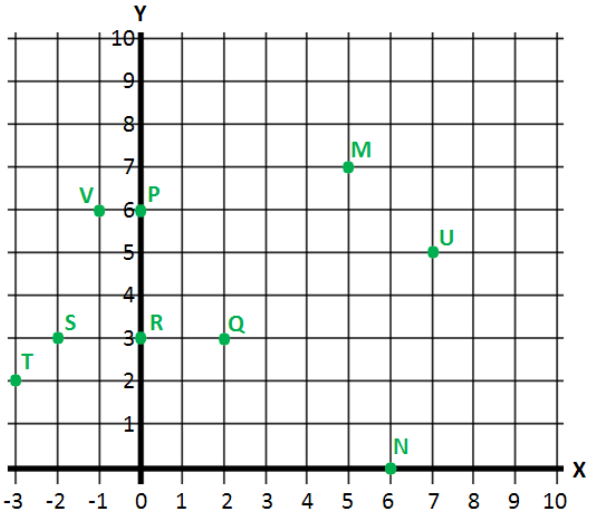
2. List the ordered pair of numbers that corresponds with each letter from the grid below.

   a. Point M b. Point S

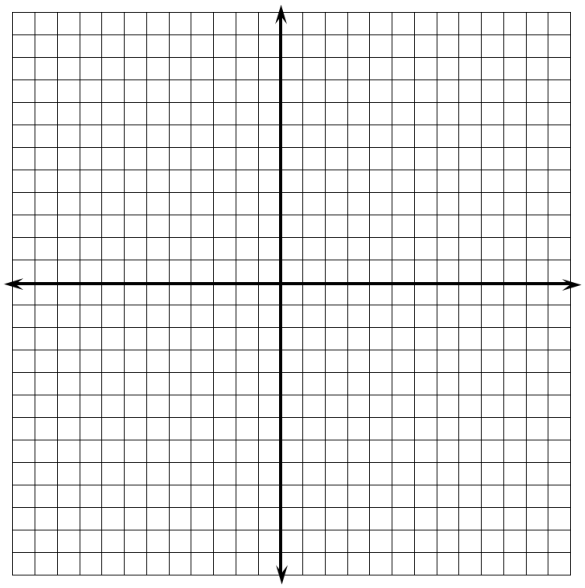
   c. Point N d. Point T

   e. Point P f. Point U

   g. Point Q h. Point V



3. Use the coordinate plane below to answer parts (a)–(c).



   a. Graph at least five points on the x-axis, and label their coordinates.

   b. What do the coordinates of your points have in common?

   c. What must be true about any point that lies on the x-axis? Explain.

4. Write the coordinates of at least one point in each of the four quadrants.

   a. Quadrant I

   b. Quadrant II

   c. Quadrant III

   d. Quadrant IV

Lesson Summary

- The order of numbers in an ordered pair is important because the ordered pair should describe one location in the coordinate plane.
- The first number (called the *first coordinate*) describes a location using the horizontal direction.
- The second number (called the *second coordinate*) describes a location using the vertical direction.

Problem Set

1. Use the set of ordered pairs below to answer each question.

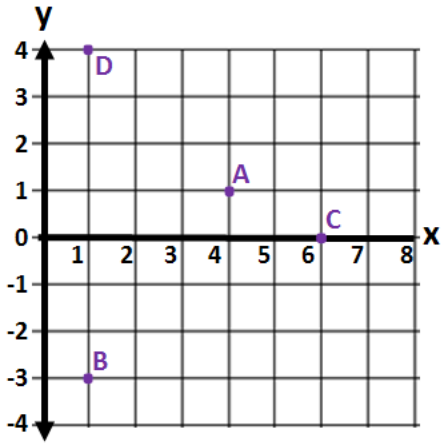
$$\{(4, 20), (8, 4), (2, 3), (15, 3), (6, 15), (6, 30), (1, 5), (6, 18), (0, 3)\}$$

   a. Write the ordered pair(s) whose first and second coordinate have a greatest common factor of 3.

   b. Write the ordered pair(s) whose first coordinate is a factor of its second coordinate.

   c. Write the ordered pair(s) whose second coordinate is a prime number.

2. Write ordered pairs that represent the location of points A, B, C, and D, where the first coordinate represents the horizontal direction, and the second coordinate represents the vertical direction.



3. 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.