

Your Outcomes

- You will use ordered pairs to name points in a grid and to locate points on a map.
- You will identify the first number in an ordered pair as the *first coordinate* and the second number as the *second coordinate*.

Vocabulary:

- coordinate plane- it has 2 axes; a vertical and horizontal number line that intersect perpendicular
- x axis- a horizontal axis on a coordinate plane
- y axis- a vertical axis on a coordinate plane
- quadrant- the axes separate the coordinate plane into 4 regions
- origin- the center of the coordinate plane (0,0); it's where they axes intersect
- ordered pair- numbers used to locate a point
- first coordinate - first number of an ordered pair (x coordinate)
- second coordinate - second number of an ordered pair (y coordinate)

Guided Work

Example 1: Using Ordered Pairs to Name Locations

Scenario 1: The seats in a college football stadium are arranged into 210 sections, with 144 seats in each section. Your ticket to the game indicates the location of your seat using the ordered pair of numbers (123, 37). Describe the meaning of each number in the ordered pair and how you would use them to find your seat.

Section - 123 x
Seat 37 y

Scenario 2: Airline pilots use measurements of longitude and latitude to determine their location and to find airports around the world. Longitude is measured as 0–180° east, or 0–180° west of a line stretching from the North Pole to the South Pole through Greenwich, England called the prime meridian. Latitude is measured as 0–90° north or 0–90° south of the Earth's Equator. A pilot has the ordered pair (90° west, 30° north). How would the pilot locate the airport on a map? Would there be any confusion if a pilot were given the ordered pair (90°, 30°)?

Yes the pilot needs to know east or west 90° and if it's north or south 30°. The pilot could end up in the wrong place.

1. a. Label each axis (x, y)

b. Number each Quadrant

(I, II, III, IV)

c. Number each axis

(.5, 1, 1.5, 2, 2.5)

(-.5, -1, -1.5, -2, -2.5)

d. Label the origin (0, 0)

e. plot coordinates

(3, -2)

(-3, -2)

(3, 2)

(-3, 2)

