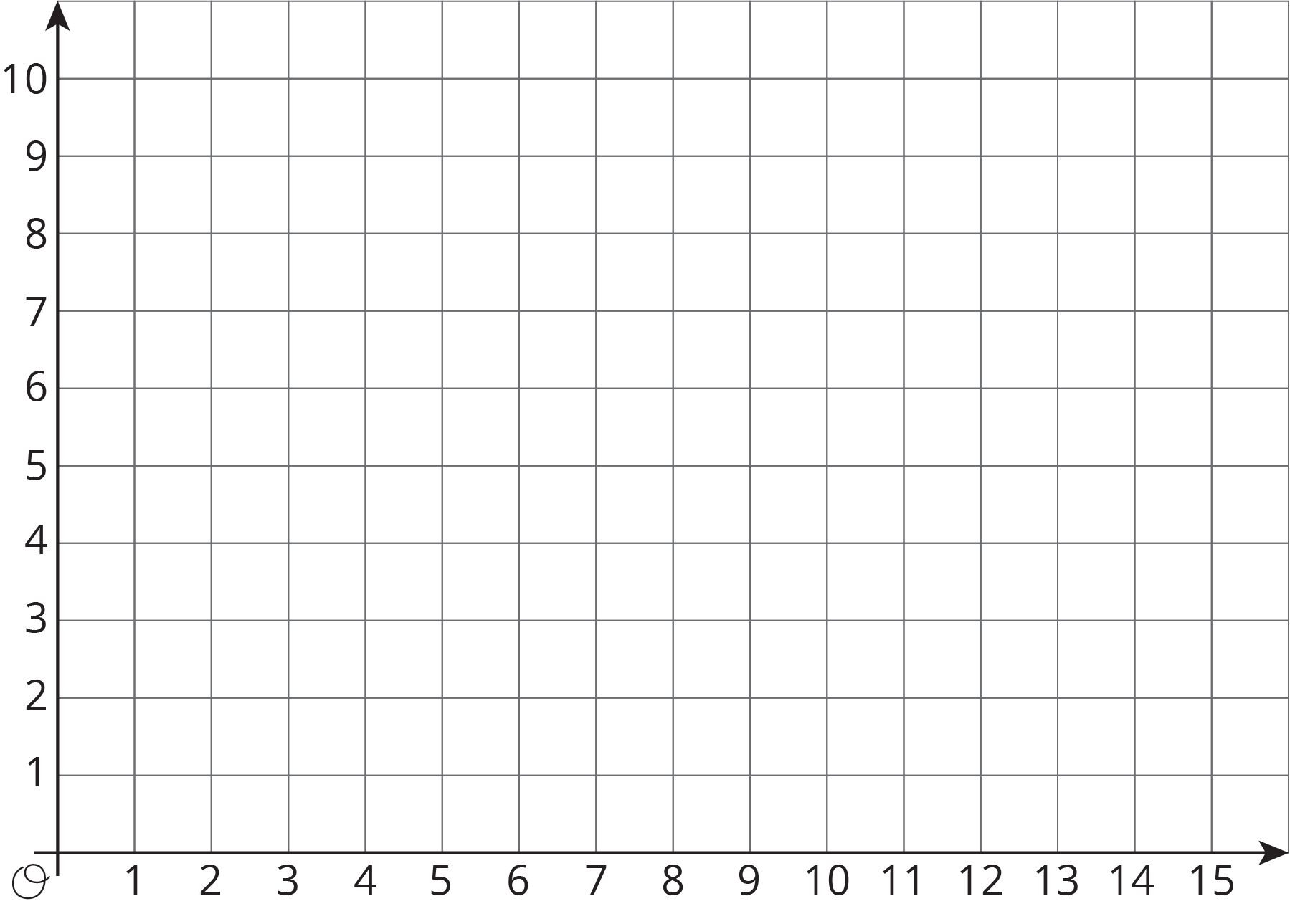
## Unit 7 Lesson 11: Constructing the Coordinate Plane

### 1 Guess My Line (Warm up)

#### Student Task Statement

1. Choose a horizontal or a vertical line on the grid. Draw 4 points on the line and label each point with its coordinates.

* 

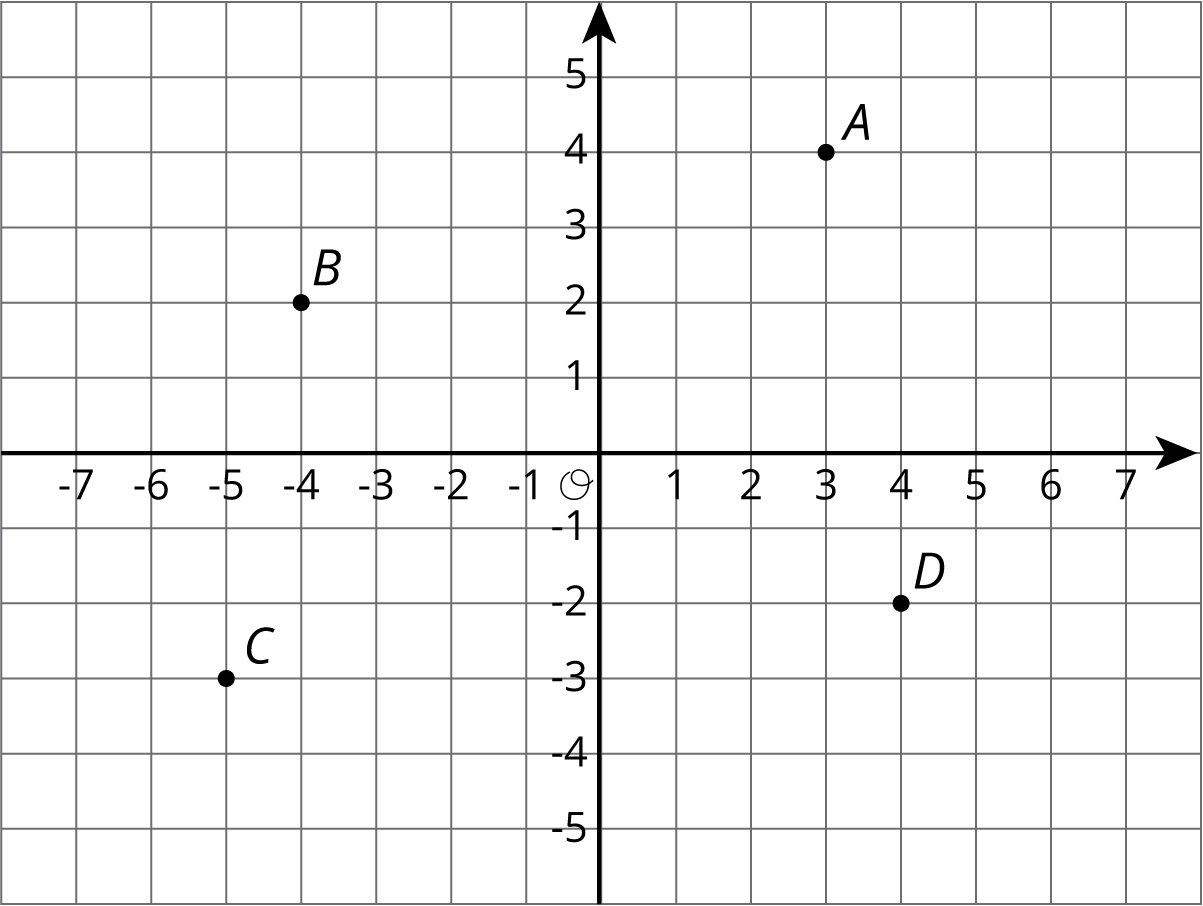
1. Tell your partner whether your line is horizontal or vertical, and have your partner guess the locations of your points by naming coordinates.

* If a guess is correct, put an X through the point. If your partner guessed a point that is on your line but not the point that you plotted, say, “That point is on my line, but is not one of my points.”
* Take turns guessing each other’s points, 3 guesses per turn.

### 2 The Coordinate Plane

#### Student Task Statement

1. Label each point on the coordinate plane with an ordered pair.

* 

1. What do you notice about the locations and ordered pairs of , , and ? How are they different from those for point ?
2. Plot a point at . Label it . Plot another point at . Label it .
3. The coordinate plane is divided into four **quadrants**, I, II, III, and IV, as shown here.

* 

1. In which quadrant is point located? Point ? Point ?
2. A point has a positive -coordinate. In which quadrant could it be?

### 3 Axes Drawing Decisions

#### Student Task Statement

1. Here are three sets of coordinates. For each set, draw and label an appropriate pair of axes and plot the points.
   * 
   * 
   * 
2. Discuss with a partner:
   * How are the axes and labels of your three drawings different?
   * How did the coordinates affect the way you drew the axes and label the numbers?



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