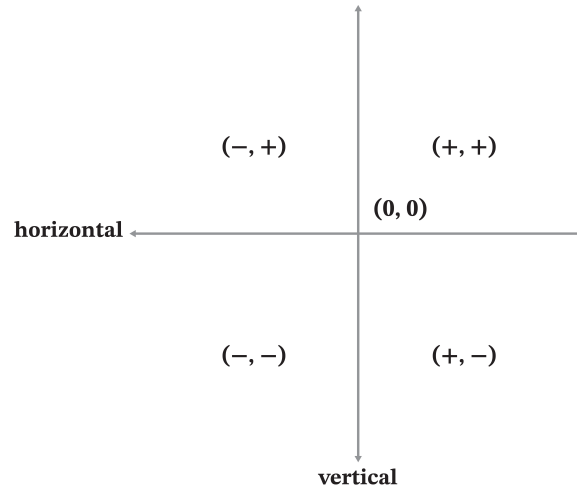


▶ **The Coordinate Plane**

Fill in the guided notes as you watch the video in the Digital Toolbox.

- The _____ is made up of a horizontal number line and a vertical number line.
 - The horizontal number line is the _____ .
 - The vertical number line is the _____ .
- The _____ $(0, 0)$ is the name of the point where the x - and y -axes intersect.
- The axes separate the coordinate plane into four quadrants.
 - Quadrant I : $(+x, +y)$
 - Quadrant II: $(-x, +y)$
 - Quadrant III: $(-x, -y)$
 - Quadrant IV: $(+x, -y)$



- An x - and y -coordinate written as a pair (x, y) , form a single _____ on the coordinate plane.
- To plot a point on the coordinate plane:
 - Locate where the x -coordinate and y -coordinate _____ .
 - Mark the location with a _____ .

▶ Example 1

Complete the example as you watch the video in the Digital Toolbox.

A) Name the coordinates of each point.

A

B

C

Plot the points.

D (1, -2)

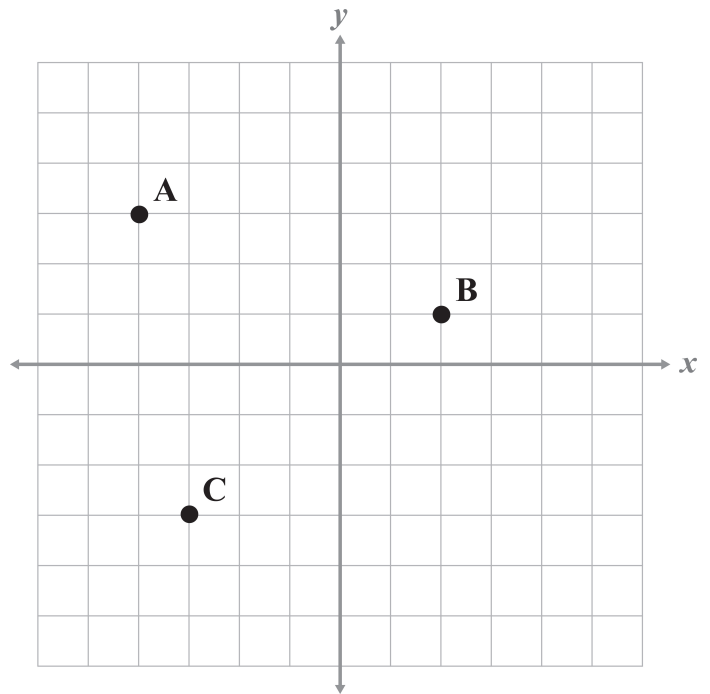
E (2, -3)

F (4, 0)

G (0, 4)

B) Find the distance between points B and E.

C) Find the distance between points C and E.



 **Practice**

- 1) Name the marked points that form the letter "A" on the coordinate plane.
- 2) Determine the distance between the connected horizontal points in the letter "A."

Graph the points in order. Connect the points with line segments until you reach the word STOP. Then start a new figure.

3) $(-8, 7)$
 $(-8, 2)$
 $(-7, 0)$
 $(-5, 0)$
 $(-4, 2)$
 $(-4, 7)$
 STOP

4) $(2, 0)$
 $(2, 7)$
 $(6, 7)$
 $(7, 6)$
 $(7, 5)$
 $(6, 4)$
 $(7, 0)$
 STOP

5) $(2, 4)$
 $(6, 4)$
 STOP

6) $(6, -6)$
 $(8, 0)$
 $(10, -6)$
 $(5, -2)$
 $(10, -2)$
 $(6, -6)$
 STOP

