

LESSON 12.1 Graphing on the Coordinate Plane



FL 6.NS.3.6c

...find and position pairs of integers and other rational numbers on a coordinate plane. Also 6.NS.3.6, 6.NS.3.6b, 6.NS.3.8

* Review to help with Week 3 Packet (module 14)



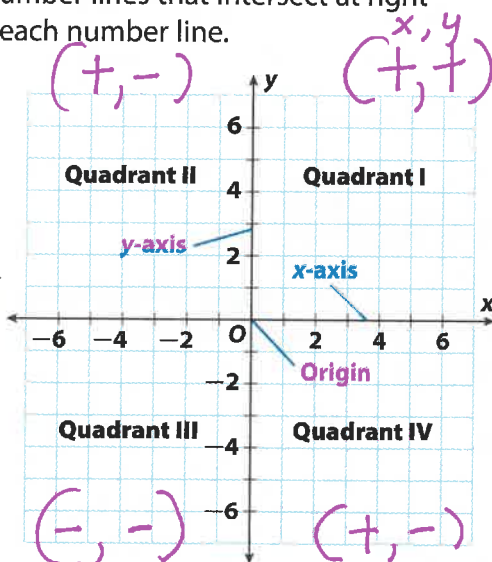
ESSENTIAL QUESTION

How do you locate and name points in the coordinate plane?

Naming Points in the Coordinate Plane

A **coordinate plane** is formed by two number lines that intersect at right angles. The point of intersection is 0 on each number line.

- The two number lines are called the **axes**.
- The horizontal axis is called the **x-axis**.
- The vertical axis is called the **y-axis**.
- The point where the axes intersect is called the **origin**.
- The two axes divide the coordinate plane into four **quadrants**.



An **ordered pair** is a pair of numbers that gives the location of a point on a coordinate plane. The first number tells how far to the right (positive) or left (negative) the point is located from the origin. The second number tells how far up (positive) or down (negative) the point is located from the origin.

The numbers in an ordered pair are called **coordinates**. The first number is the **x-coordinate** and the second number is the **y-coordinate**.

EXAMPLE 1

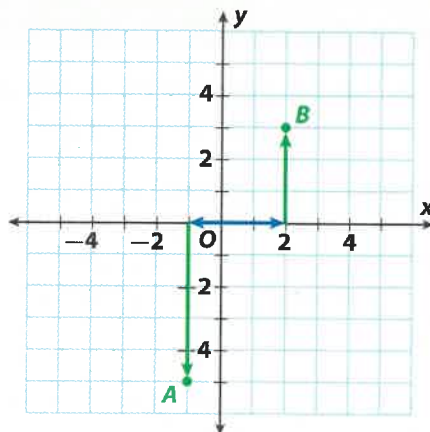


FL 6.NS.3.6c, 6.NS.3.6b

Identify the coordinates of each point. Name the quadrant where each point is located.

Point A is 1 unit **left** of the origin, and 5 units **down**. It has x-coordinate **-1** and y-coordinate **-5**, written **$(-1, -5)$** . It is located in Quadrant III.

Point B is 2 units **right** of the origin, and 3 units **up**. It has x-coordinate **2** and y-coordinate **3**, written **$(2, 3)$** . It is located in Quadrant I.



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Tips to help with Week 3 Packet Mathematics

***Sheet 14-2**

Tip: a polygon is a closed plane figure formed by 3 or more line segments.

NOTE: 2 points will NOT form a polygon.

Problem #1- It is possible to use the points to make the following polygons:

3 sided

4 sided

And 5 sided figures

You must use the points (alphabet letters) to list the **different** ways that you can form these figures. For example: If they gave you a coordinate grid with these points labeled: L, M, N, O, P. You could list the following triangles that are possible: LMN or NOP or LNO, etc., as long as they form a triangle.

Problems #5/6 – Perimeter is found by finding the distance around a polygon.

Area is found by counting the square units inside a figure.