

Math 9 – Unit 6: Coordinate Geometry

Name: _____

Lesson #1: The Coordinate Plane

Date: _____

Learning Goal: We are learning how to use the coordinate grid system.

In this chapter and the next, we will learn a lot of new vocabulary. You need to become intimate with these words, so let's first define them, then draw/label them!

Coordinate Plane

Quadrants

x-axis

y-axis

x-coordinate

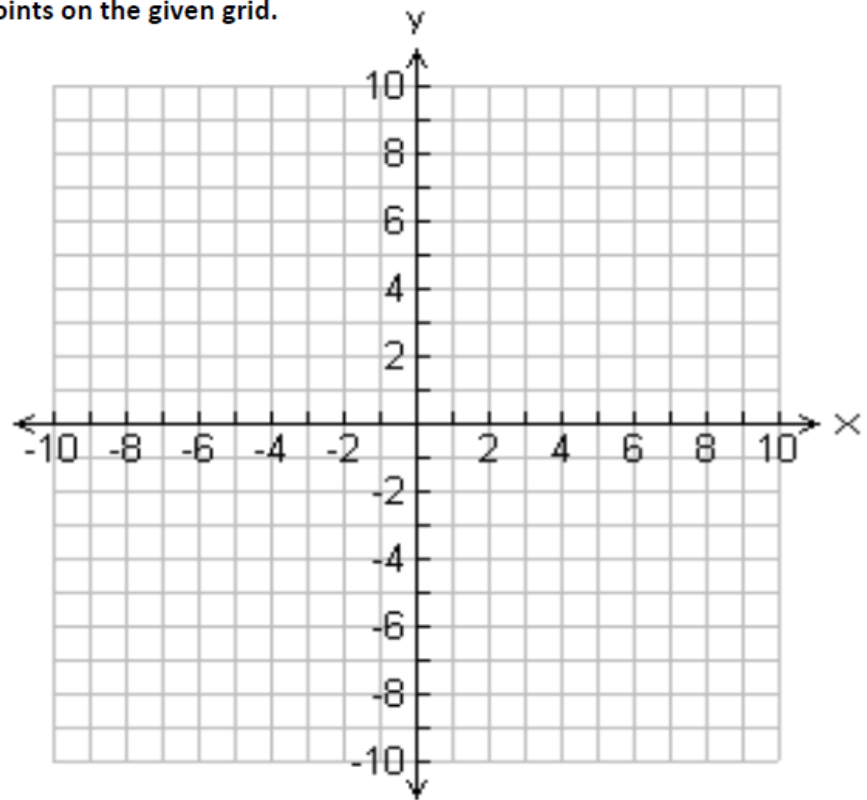
y-coordinate

Ordered Pair

Origin

Example 1: Graph the following points on the given grid.

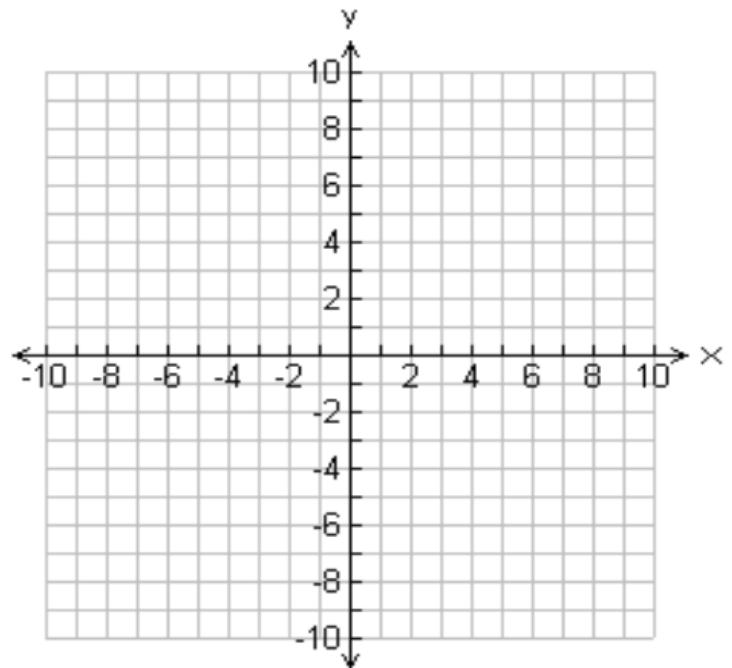
- | | |
|-----------|------------|
| A (3 , 4) | B (-1, 4) |
| C (4, -2) | D (-5, -4) |
| E (2, 5) | F (-3, -1) |
| G (-3, 7) | H (6, -2) |
| I (2 , 0) | J (0 , -4) |



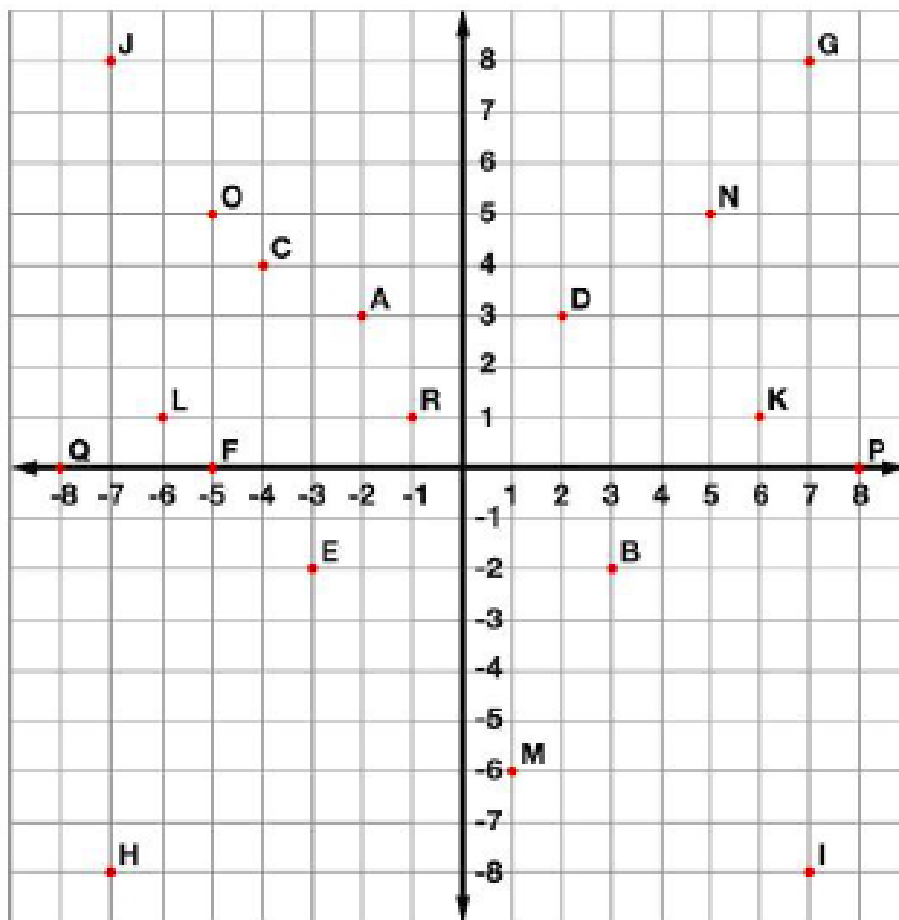
Example 2: Calculate the area of a triangle with vertices at A(-5,-3), B(3,-3), and C(3,8)

Step 1: Plot the points and connect the points to form a triangle

Step 2: Find the length of the base and height



Step 3: Calculate the area



Tell what point is located at each ordered pair.

- | | | |
|---------------------|--------------------|--------------------|
| 1. $(3, -2)$ _____ | 2. $(2, 3)$ _____ | 3. $(-5, 5)$ _____ |
| 4. $(-7, -8)$ _____ | 5. $(-4, 4)$ _____ | 6. $(-5, 0)$ _____ |

Write the ordered pair for each given point.

- | | | |
|--------------------|--------------------|--------------------|
| 7. E _____ | 8. M _____ | 9. P _____ |
| 10. G _____ | 11. Q _____ | 12. N _____ |

Plot the following points on the coordinate grid.

- | | | |
|-------------------------|------------------------|-----------------------|
| 13. S $(-6, -3)$ | 14. T $(2, -4)$ | 15. U $(5, 8)$ |
|-------------------------|------------------------|-----------------------|

Success Criteria:

- I can define the important key terms that are used in the coordinate grid system
- I can tell the difference between the “x” and “y” coordinates in an ordered pair
- I can find an ordered pair on a coordinate grid