Lesson 7-2 : Polygons and distance on the coordinate plane

SWBAT: Graph polygons and find the distance between points on the coordinate plane.

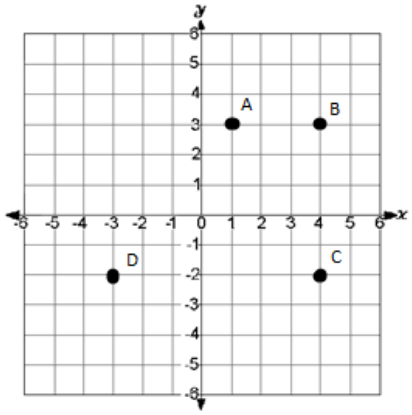
Vocab Words:

- Polygon – _____
- Horizontal lines - _____
- Vertical lines – _____
- Distance – _____

Finding Distance:

- There are 2 ways to find distance between points. You can either make the graph and count the spaces between them, or you can calculate it by the points locations.

Find the distance from each point:



From point A to point B

From point B to point C

From Point C to Point D

Find the distance without a graph

- Write down the _____and find which number changed (_____)
- you just have to _____ them and find the absolute value of your answer.
- Ex: (3 , 1) and (3 , 8) I can see that the distance is being traveled on the y-axis so I am going to subtract 8-1 = 7. The distance is |7| = 7!

Ex:

a. Find the distance between (-2 , 1) and (4 , 1)

b. Find the distance (1 , 4) and (1 , 9)

c. Find the distance (-3 , -4) and (-3 , -4)

Reflecting shapes on a graph:

- Reflection – _____
- When flipping over the x-axis, the x-points stay the same and the y-points become opposite.
- When flipping over the y-axis, the y-points stay the same and the x-points become opposite.

Ex:

a. Which axis is (3 , 2) and (-3 , 2) reflected over?

B. Which axis is (2 , 5) and (2 , -5) reflected over?