Tips for Determining Distance on a Coordinate Grid & Reflection Tips TOP DOC

Are you having difficulty finding the distance between coordinates on a coordinate grid?

Try these four questions:

- 1. Are the coordinates in the same quadrant or in different quadrants?
- 2. Should you subtract the absolute values (yes if they are in the same quadrant) or add the absolute values (yes if they are in different quadrants)?
- 3. Is the distance between the two points vertical (they make a line parallel to the y-axis when connected) or is the distance horizontal (they make a line parallel to the x-axis when connected)? IF YOU AREN'T SURE DO A QUICK SKETCH!
- 4. Do you use the x-coordinate in your calculation (yes if the distance is horizontal) or do you use the y-coordinate in your calculation (yes if the distance is vertical)?

Ask yourself those questions until you have them memorized!

Are you having difficulty determining the correct coordinates of ordered pairs when reflecting them over the x or y axis?

- 1. If you reflect an ordered pair over the x-axis the new x-coordinate is the SAME and the new y-coordinate is the OPPOSITE of the first ordered pair. So (3,4) reflected over the x-axis = (3, -4).
- 2. If you reflect an ordered pair over the y-axis the new x-coordinate is the OPPOSITE and the new y-coordinate is the SAME as the first ordered pair. So (3,4) reflected over the y-axis = (-3, 4).

You have to think about these tips often enough so that they become second nature!