## COORDINART Instructions

Welcome to CoordinArt. The designs available vary in complexity and take time to complete. ALL students do get better, and enjoy them more and more. Completed designs make for great room \& hallway décor!

The first number (coordinate) in every ordered pair is the $x$-coordinate.
The second number is always the $y$-coordinate.
Find the $x$-coordinate value along the horizontal axis, and moving directly up for a positive $y$-coordinate value, or directly down for a negative $y$-coordinate. NOT ALL coordinates are whole numbers. You must pay attention to the decimal coordinates.

For example: $(2.5,5.5)$
The $x$-coordinate 2.5 would be found halfway between the vertical lines for 2 and 3 .
The $y$-coordinate 5.5 would be found halfway between the horizontal lines for 5 and 6 .
Therefore, the point plotted will end up in the middle of a square on the grid and NOT on any gridlines.

Using a straight edge connect the points as you go, but stop connecting when you come to the word STOP.

Begin a fresh set of connected points with the next set of ordered pairs.
If a student (or you) find yourself drawing a stray line through the design you most likely either mixed up the $x$ and y coordinates, or overlooked whether a coordinate was positive or negative, OR I may have erroneously typed a coordinate positive or negative. I have tested all designs, but I am human. ©

Hints for those new to plotting in all four quadrants:

1) To start FIRST have students take out a highlighter (or borrow one) and highlight the NEGATIVE portion of the $x$ - axis. (Using a straight edge helps) Demonstrate for students with a document camera. (Test the highlighter to still easily read through it!)
2) Using that same highlighter - highlight ONLY the $x$-coordinates on the page of ordered pairs that are NEGATIVE. (For the first time, I suggest completing the entire sets of coordinates together.)
3) Take a different color highlighter and highlight the NEGATIVE portion of the $y$-axis. (Students are good at sharing with each other to find a second color to use.)
4) Using this second color, highlight ONLY the negative y-coordinates.
5) Quickly walk around to check that coordinate grids and instructions are highlighted correctly. (Have a few extra on hand for those who didn't highlight as demonstrated.)

Taking the time to do this helps call attention to the negative numbers and allow students more success right from the start.

Allow at least two full days to get all points plotted, and another day to color appropriately! Allow students to check their work with each together as they go. These can be great emergency substitute plans for three days!

