Lesson Plan

Number Systems 8

MATHEMATICAL GOAL:

To be able to graph points in all four quadrants of the coordinate plane including use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate and solve real world problems.

Vocabulary: coordinate plane, absolute value, coordinate, plane, point of origin, and absolute value notation

ANTICIPATORY SET – Pot of Gold activity. Ask a student to guide a blindfolded student to a “pot of gold” using only the directions of moving forward or backward, turning left or right, and number of steps to take. Tell the other students that their task is to create a set of directions for another pair of students to be able to repeat the pathway EXACTLY using the least amount of words.

*GOAL – Guide/push them toward most efficient, internationally implicit, method - Using a grid/coordinate to map. Present some appropriate student examples to share, stepping them to an example of one with ordered pairs.*

*? Would this set of directions work for someone who didn’t speak English?*

*? Could you create directions without using directional words?*

*DEBRIEF – If they have not “discovered” ordered pairs yet, then identify a point of origin and move it to the middle of the floor. Is there a difference? In the world of mathematics, what is the most efficient way to give directions?*

TASK 1-

*Goal – Teachers will be able to plot ordered pairs on a 4-quadrant graph and identify the absolute value between two ordered pairs.*

On the floor, a 4-quadrant graph would be taped out. No numbers will be included. The “point of origin” from the anticipatory set should be moved to indicate the new graph

TASK 2 – See Lesson Plan NS8