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| **Cartesian Planes Games** |
| **Suggested Activity Duration: 20-30 min.** |
| **OUTCOMES FROM ALBERTA PROGRAM OF STUDIES** |
| **General Learning Outcomes:**   * Cartesian Plane   + GLO: Describe and analyze position and motion of objects and shapes (Shape & Space – Transformations) |
| **Specific Learning Outcomes:**   * Cartesian Plane   + SLO: SS4. Identify and plot points in the four quadrants of a Cartesian plane, using integral ordered pairs. |
| **MATERIALS AND SETUP** |
| * Graph paper game sheets |
| **PROCEDURE** |
| 1. **Connect the Dots & Battleship**    * For both games, I want them to start by folding their paper in half, hamburger fold    * For connect the dots, they will make a design on the grid, following the grid lines, and then make a list of points that they can tell their partner while their partner connects the dots      + Both partners will draw at the same time and then take turns connecting the dots      + The challenge is to see if they can end up with the same two drawings    * For battle ship, both players will get five straight ships whose lengths are 5, 4, 3, 2, and 1 squares (every ship has one more life than squares)      + You play it just like battleship – Both players will draw their ships at the same time and then take turns guessing coordinate points      + On your grid, draw a circle for a miss and an x for a hit    * The trick for both games is to keep your grid hidden from the other person |
| **REFLECTION** |
| I gave a short lesson on graphing, asking them what they remember and telling them that we will be building on it. We then moved into the connect the dots and battleship games. I explained them quickly and succinctly, or so I thought. When they began, several of the students were confused. About half of the class got it. About one third of the class used most of the time making their graphs perfect. A few students drew rectangles instead of lines for ships because I had drawn rectangles with lines under them on the board. This confused students. They liked the idea of the game, but I lost several students along the way. I will learn from this as I move forward. I need to keep it simple and clear. Maybe it would have been smoother if I had prepared sheets for them so the focus could be on the ordered pairs. This is what I had planned, but it was clearly not how it played out. |