Activity 1e: Battleship   Recommended Grades: 5

Activity Instructions

1. Folding the grid paper in half.

2. Draw coordinate axes on both the top half and the bottom half and label the x and y axes with the numbers 1–10 on each axis. Remember the numbers go on the lines, not between.

3. Each player will need to draw in 5 ships on ordered pairs and label the ordered pairs. They should draw:

   - Two ships that are sitting on 2 ordered pairs,

   - One ship that is sitting on 3 ordered pairs,

   - One ship that is sitting on 4 ordered pairs, and

   - One ship sitting on 5 ordered pairs.

4. Remind them the bottom half has their boats or (Navy) and the top half has their opponent's boats.

5. Play in pairs sitting opposite each other and take turns calling out ordered pairs.

6. Players should keep a list of the ordered pairs they call out written in (x,y) form on a piece of paper that both players can see so there is no disagreement later on about what has been called (it is common for students to transpose the coordinates).

7. Players mark the ordered pair they call out on the top coordinate plane. They should mark in black if they missed and red if they hit their opponent's boat. On the bottom half of the grid paper they are to color black for the ordered pairs their opponent calls out and color red for the ordered pairs that hit their ship.

Virtual Game Link:

https://www.education.ky.gov/curriculum/conpro/Documents/Geometry_Battleship_KFMN.pptx

Family Prompts

- When you plot your points how do you use the x- and y- axis? What would happen if you and your opponent didn't have a standard rule for calling out your points?
- How did you choose your coordinates? Was there a strategy you used to place your "battleships"? Was there a strategy you used to select the coordinates you guessed for your opponent's "battleships"?
- Do you want to play again?
- Did you try a method for guessing that did not work? Why didn't it work? Would it ever work? Why or why not?
- Can you give an example of how we use coordinates like this other than when playing Battleship?