

## Equations of Attack

**Number of students: 2**

### Objectives

- Plot and name points on a coordinate grid using correct coordinate pairs
- Graph lines given slope and y-intercept
- Practice writing equations given slope and y-intercept
- Determine algebraically if a point lies on a line

### Materials

- Colored pencils or markers
- Coins or counters
- Scissors
- Activity Sheet
- Equations of Attack Activity Sheet
- Slope Cards

### Rules of the Game

1. Flip a coin to determine who gets to place the first ship and gets to choose whether he/she gets the even or odd cannons.
2. Each player should choose one color to represent his/her fleet. One player places the first ship by drawing a large dot on the board. Then, the other player places the second ship. Continue placing ships until each player has five ships on the board. Note: Ships can only be placed at lattice points.
3. Each player will have five cannons along the y-axis. One player will have all the even cannons (0, 2, 4, 6, 8), and the other player will have the odd cannons (1, 3, 5, 7, 9), as determined by the initial coin toss. Mark your cannons with X's using your color.
4. The player with the even cannons goes first. Draw a slope card from the face-down deck. Choose any of your five cannons to shoot from. Draw a line from the cannon you chose in the direction determined by your slope. If you hit an opponent ship, the ship is sunk!
5. The first player to sink all opponent ships is the winner!