

Name _____

The Poison Game

Write down (in complete sentences) the winning strategy for the Poison Game. The Poison Game is a two-player game where there are N poison pills in front of the players. Each player can take 1 or 2 pills on their turn. The person who is left with the last pill on their turn must take it, and lose! What properties of N determine the outcome of the game? *Make sure to consider all cases.*

Let's say that there are still two players but each can take from 1 to 3 pills each time, and the one left with one pill loses. **What would be the winning strategy in this version of the Poison Game?**