HW 4: A Smart Pig AI

Your job is to create a new AI for the game of pig.

Start with the pig game that you created during lab, including the abstract class `PigPlayer`, and the two regular classes that inherit from it: `ComputerPigPlayer` and `HumanPigPlayer`. Copy the class `ComputerPigPlayer` to a new class called `XsPigPlayer`, where `X` is your preferred first name. The file holding this class is the one you're going to turn in.

Almost all of the work you do will be inside the method `decideIfShouldRoll()`. This method takes five different arguments: the turn number (0-indexed), the roll number (also 0-indexed), the size of the pool, this player's current score, and the opponent's current score. Using some combination of these, you must answer the question: should the player roll again?

It is possible to do this homework assignment with minimal effort. You may do that if you wish. However, next week we will have a tournament, in which the player you submit plays against the rest of the class. If your player comes in first, you will earn 15 extra-credit points. If you come in second or third, you will earn 5 points. (If you'd prefer not to compete, let me know.)

Feel free to use any information that you find online. (There are technical papers explaining how to play pig optimally.)

And of course, style and comments are an important part of your grade.