Problem 1(100pt): Tic Tac Toe game

A two-player Tic Tac Toe game is implemented in `ttt.cpp`. However, it only works with perfect user inputs. Modify the code so that the game can handle erroneous inputs and work as a one-player game as well.

(30pt) Allow users to choose if they wants to play a one-player or two-player game using the following code. If 'one-player game' is chosen, your program should play against the player. You don't have to design a perfect strategy to beat all players.

```
std::cout << "Do you want to play a 1-player or 2-player
                game? Please enter 1 or 2."
          << std::endl;
```

(30pt) Define your own exception classes and use `try, throw, catch` statements to handle any exceptions that may occur in the game. Once an exception occurs, print the error message to the console and allow users to re-enter. Your error message should be descriptive so users know what goes wrong and how to adjust their input.

Instructions:

- Your code will be graded based on correctness, efficiency, clearness, and practices. For this homework, the only library header files you are allowed to use are:
  - iostream, iomanip
  - stdexcept, string
- (5pt) Name your cpp file as "myttt.cpp" and submitted it to CCLE. Add description of this file in the beginning to show your ownership. A sample description may look like:

```
/*
    PIC 10C Homework 1, Heap.h
    Purpose: Define a template heap class
    Author: John Doe
    Date: 01/01/2021
*/
```

- (10pt) Good coding practice includes commenting your code, using descriptive variable/function names, using efficient algorithms, etc. Coding practice part will be graded by three levels: 0, 5, 10.
- (25pt) Since this project is a game, it will also be graded based on user experience. Ask yourself the following questions when you design your code. Is the game straightforward enough, so people who don't know C++ can also play? Is the code able to handle all erroneous inputs? Is it easy for users to fix their erroneous input? If error can't be caught, will it lead to unexpected results, such as infinite loops, wrong game results, or halt the program? User experience part will be graded by three levels: 5, 15, 25.
- The official grading compiler is Visual Studio 2019 and you may lose majority of points if your code does not compile. If you don't have VS2019 installed in your computer, you are welcome to check your homework using virtual machines before submission. Please only check your homework after it has satisfying results on your local computer. Manually log out your account after using the machine.