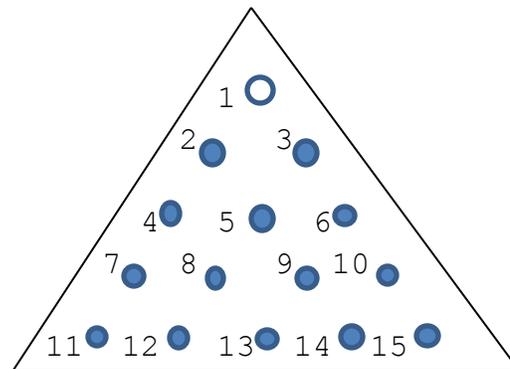


Option 2: The Peg Game

This is a game that can be found in all Cracker Barrel Restaurants. It is a triangular piece of wood that contains 15 holes, 14 of which are filled with golf tees. It looks like this:



To start the game the top hole is left empty. Whenever a tee jumps over another tee, the tee that was jumped is removed from the board. The object of the game is to continue jumping tees until it is impossible to make any other jumps. The goal of the game is to have as few tees left on the board as possible when no more jumps can be executed. It is possible to have one tee left!

Task #1:

Write a Java program that will determine and record the order in which jumps should be made so that one tee will remain on the board at the end of the game. There are several ways to do this: perhaps the easiest way is to have the computer continue to play the game until one tee remains. In this method the program will determine all possible jumps and randomly select the jump to make. The final output would be the instructions on how to play the game so that one tee would remain.

Task #2:

Write a Java program that will simulate The Peg Game - it should allow the user to play the game. Whether the game outputs to the console window, a JFrame, or a JApplet is up to you. Please feel free to use Java objects and methods that we have not studied this year.

If it would help, you may borrow the real game from Mr. Ehren.