Winning the Cracker Barrel Peg Jump Game
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The peg jump game, sometimes called Peg Solitaire or Hi-Q, has certainly been around longer than Cracker Barrel has had it placed on each table as a time-killing device, so you won't realize how long it's taking to get your food. Clever. Cracker Barrel says the game has been around since the 17th century in the court of Louis XIV as evidenced by its appearance in some paintings and in an engraving around 1700 as well as being mentioned in print around that time. So the game is of French ancestry. *Ooh la la.*

Cracker Barrel says (link below) that the game has been in its stores since the first restaurant opened in 1969, and the game is still manufactured by the same company.

And if you're a normal person, you are unable to not pick it up and give it a try while you notice that the table next to you already has its biscuits and cornbread, and they came in after you. But when you pick it up, you're so mesmerized that you forget how long it's taking to get your food. Psychological ploy aside, it's quite a fun and challenging game. I must warn you, however, that once you know the secret, you'll probably not play it again, unless it's just to show someone else how smart you are. But there are some variations that I'll tell you about at the end.

Let me first state that I did not get this solution from the Internet or anywhere else. I figured it out. Ther are articles and videos on the Internet that tell you how to work it, but I believe mine is a little more descriptive and didactic. *Didactic* is a fancy word for *instructional*. There is a difference between demonstrating how something is done and teaching them how to do it. For example, a person can demonstrate how they swim, but that is quite different from actually teaching a person how to swim. Since I am a teacher, I am used to the latter. I know that a quick video or simply listing of steps is not the way to teach something. Cracker Barrel itself even has a blog on it that gives you the steps.

https://blog.crackerbarrel.com/2021/08/13/how-to-beat-the-cracker-barrel-peg-game/

But in this document, I show you the steps with each step containing a photo of what the board looks like, so you can quickly see your progression. This is important so that you can see what your immediate objectives are. Meeting your immediate objectives will get you to your final objective.

Getting Started
The game goes like this. The triangular board contains 15 holes in five rows, arranged with one hole on the top row, two on the second row, three on the third row, four on the fourth row, and five on the fifth row. You start with one hole empty, leaving 14 pegs. The objective is to jump a peg over another peg into an empty hole. The peg you jump over is removed. You continue jumping until only one peg remains.

You can start the game however you want in terms of which hole is open. Although there are multiple solutions, the one I figured out has the very top hole missing a peg. This seems to be the most logical and obvious starting position, though I cannot tell you why. The figure below shows this starting arrangement.

BTW: Photos were taken from Peg Jump Game by Seventy Nine Lines.

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Now, for me to explain to you how to do it, we need a way to identify the holes. The following diagram shows the numbers that I will use to identify the holes.


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            1
         2     3
       4    5    6
     7    8    9    10
  11   12   13   14   15
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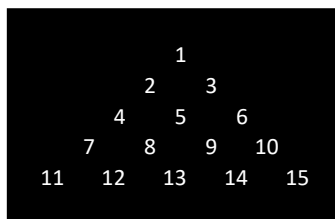
As you progress through the game, remember that you need to avoid getting a single peg isolated. If you do, you can still manage the situation, but you need to get that peg closer to the rest. It's a bit like herding animals. Avoid the stray. Now, as you will see below, that's not completely possible, but you will quickly bring it back. Or make it disappear. As a general rule, try to move the pegs toward one side. Choose which side you're going to move the pegs to. In this solution, I will move the pegs toward the left.

Here are the steps that will take you to the final solution, a single peg in the middle of the fifth row.

Step 1: 6 to 1

You have only two moves. Either will work, but depending on which one you choose, you will be moving the pegs toward the left or right. I choose the above move. You have jumped over and removed the peg in the 3 slot. The board then looks like this

Step 2: 4 to 6

You have several possible moves now. Our short-term goal is to clear rows one and two and the end slots of row three, leaving a single peg in the middle of row three. With this move, you have now removed the peg in the 5 slot. The board then looks like the following after this move.

Step 3: 1 to 4

To achieve our short-term goal of clearing rows one and two and the end slots of row three, you do this move. You have now removed the peg in the 2 slot. The board now looks like this. Notice the symmetry. You have eliminated rows 1 and 2 and are now ready to do some serious jumping.

Step 4: 10 to 3

This eliminates the peg in slot 6 but you have an isolated peg now in slot 3, so you will need to bring it down the best way possible. The board now looks like this.

The peg in slot 3 is like a stray, but it won't be for long. For right nowe, however, there is no way you can move it, so you have to get another peg next to it.
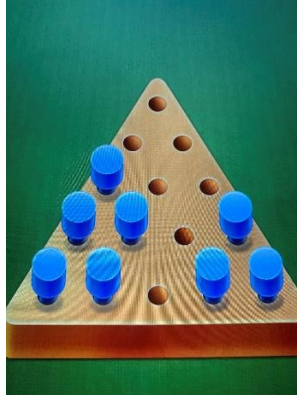
Step 5: 13 to 6

This removes the peg in slot 9 and gives the peg in slot 3 a way to come back toward the others. The board now looks like this.
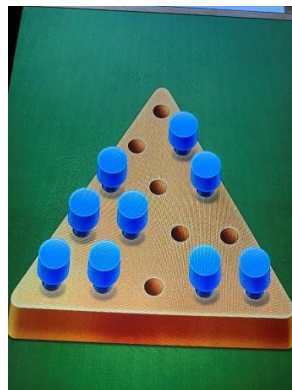
Step 6: 3 to 10

This move should be obvious. We have to get the peg in slot 3 closer to the rest. This gets rid of the isolated peg in slot 6. Well, it just moves it.

As noted, there are many solutions, but in all cases, an isolated peg is like a stray animal. You have got to get it back toward the others as soon as possible.

Also note now how we have five pegs to the left and three to the right. We are pursuing our strategy of trying to cluster the pegs more to the left. But we'll now have to deviate a bit.
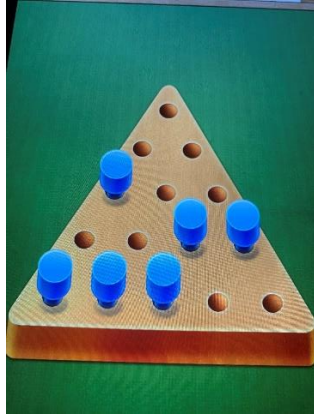
Step 7: 7 to 9

This removes the peg in the 8 slot. The layout now looks like this.

And yeah. We now have three to the left and four to the right.
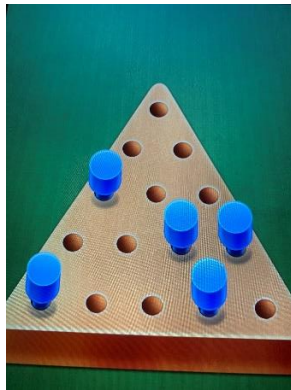
Step 8: 15 to 13

This removes the peg in the 14 slot, leaving he following layout.

We now have three to the left, two to the right, and one in the middle.
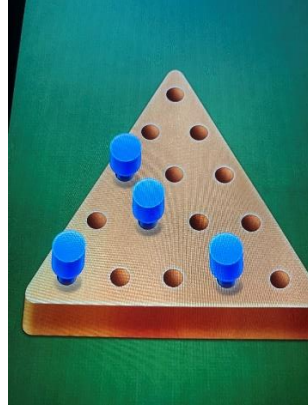
Step 9: 12 to 14

This removes the peg in the 13 slot. The board now looks like this.

Note that we have two to the left and three to the right. But the right ones are moving leftward.
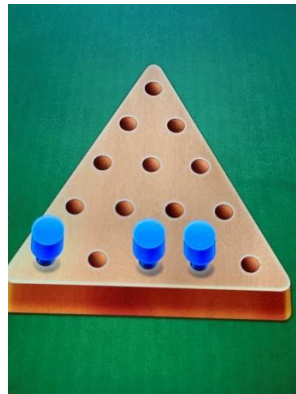
Step 10: 10 to 8

This removes the peg in the 9 slot. The layout is now the following.

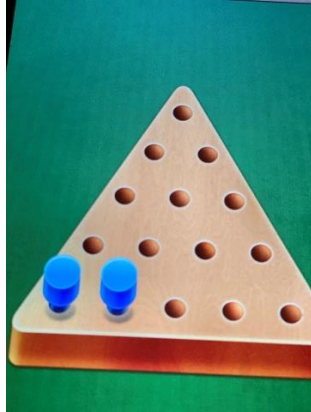Now we have three to the left and one to the right.

Step 11: 4 to 13

This removes the peg in the 9 slot. You are converging to the solution. The layout looks like this. Surely you can now see how to finish it in two steps.

There is one to the left, one to the right, and one in the center.
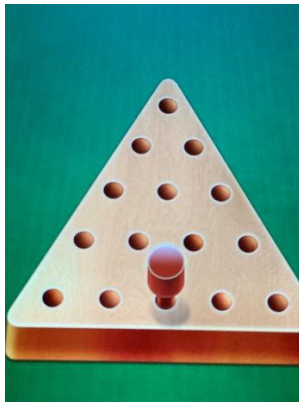
 Step 12: 14 to 12

This removes the peg in 13. The board is now the following.

And we have two to the left.

Step 13: 11 to 13

This removes the peg in 12, and you're done.

And by now your biscutis and cornbred should have arrived.

Here are some stats on this solution.

# of steps: 13. This is the case with all strategies that succeed. You start with 14 pegs. Each step removes one peg. If you have one rmeaing, it took 13 steps. If you have five remaining, it took nine steps. Distriubtion of moves: A move can be left, right, diagronal up left, diagonal up right, diagonal down left, or diagonal down right.

Left (3): Steps 8, 10, 12
Right (4): Steps 2, 7, 9, 13
Diagonal up left (2); Steps 1, 4
Diagaonal up right (0)
Diagonal down left (1): Step 3
Diagonal down right (3): Steps 5, 6, 11

Note that the 11 peg made only one move, the last.

Keeping it Going
As I said, once you know a solution, your motivation to play the game is gone. While there are other versions of the game with more rows, holes, and pegs, one other variation you can try with the 15 hole game is to place the peg somewhere else. Other alternatives are to leave the single peg in a different position. WOuldn't it be cool to leave it ack in the 1 slot? I don't know how to do that one, but I bet it's possible.

When I was a child, I had a game called R. IQ Jump. It contained pegs arranged as a cross. As I recall, it was three rows in the middle ad three up and down. I never could solve it. But then, I was just a child. Maybe I'll try to find one of these.