1 Homework Assignment 4 REVISED

You are to add to your code from Lab Assignment 5.

Game play in several dominoes games consists of chaining together the dominoes based on the dots. You are to add to your code a method that will find by recursion the longest chain that can be made by that hand.

Add the method `findLongestChain` to your `DominoGame` application class. This method should run a loop on the starting dot count and find the longest chain that can be made starting from that dot count, and then return both the length of the chain that is the longest.

NOTE: The earlier version of this assignment asked you to return the longest chain, not just the length of the longest chain. This is easier. You should print out the new longest chain when you find a chain that is either as long as or longer than the longest you have found so far.

Note that you can print this new longest chain from the bottom of the recursive method calls, which is much easier. It resembles the generation and printing of permutations for the Jumble puzzle.

If you are dealing with starting count n, and you have a double-n domino, that should be the start of your chain.

YOU MUST IMPLEMENT THE INTERFACES IN THE ZIP FILE.

YOU MUST ALSO use the `Constants` class to implement some global constants for your game. Global variables are usually deprecated, but in programs like this one it is often useful to have global constants that can be used anywhere. Note that these are all `static` values.

Your `findLongestChain` method must use recursion.

The longest chain and its length must be printed to the console or to a file.

I have included an output log file for any starting value and one starting just at 0. Read the "with annotations" one carefully, because I have commented (in lines labelled with "ZORK") on how to read this file.

I don't think I included the length when I printed out the new longest chains.