**Problem 2 - Stacks**

**Does the number of function calls agree with what you predict it should be?**

I predicted the table would represent a hyperbole graph and it does as the radian approaches zero from negative and positive values the number of calls goes down, with a major drop when radians is equal to zero. I did not expect more than one radian to have the same values, that was the only thing I did not predict for this simulation.

**Compare table output values to input? What do you see and why**.

I see that the values do not really change when working in increments of 0.1 and radians. They function were called almost equal amount of times the closer to 1 the radian was. For example, at zero there were no equal calls, but at positive and negative one and two there were two equals calls and at positive and negative three, four, five there were equal calls, and at positive and negative, six, seven, eight, nine there were equal calls. The numbers are constantly split in half and when there is not much difference in the numbers it does not take much to get it to a very small number.

**What does Theory say about recursions?**

Recursion is useful in saving time, not space, but it is efficient in that it is easier to debug and can significantly reduce time complexity.