CSCE 155 – Lab: Recursion

Worksheet – C Version

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Test your palindrome program on the following inputs:
   1. “abba”
   2. “aaba”
   3. “foobar”
   4. “civic”
   5. “civil”
   6. “foo”
2. Fill out the following table with the specified values using the recursiveFunction program.

|  |  |  |
| --- | --- | --- |
| **n** | **f(n)** | **Time (s)** |
| 0 |  |  |
| 1 |  |  |
| 2 |  |  |
| 5 |  |  |
| 10 |  |  |
| 20 |  |  |
| 30 |  |  |
| 40 |  |  |
| 42 |  |  |
| 44 |  |  |
| 46 |  |  |
| 48 |  |  |

1. Without actually running it, make a prediction on how long it would take to run the program for n = 50. How long would it run for n = 100?

1. What values do you get for each of the following inputs with your Jacobsthal program?
   1. n = 0
   2. n = 1
   3. n = 5
   4. n = 10
   5. n = 20
   6. n = 32
2. Demonstrate your working suffix generator program to a lab instructor.

Lab Instructor Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_