

recursive-fuctions.cpp

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1 /*****
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4  * LAB #12     :Recursion Performance
5  * CLASS       :CS1B
6  * SECTION     :MW: 7:30pm
7  * DUE DATE    :4/30/19
8  *****/
9
10 #include "header.h"
11 /*****
12  * This function will find the factorial of an int, num recursively
13  *-----
14  * INPUT:
15  *     num - long long integer
16  * OUTPUT:
17  *     factorial of num
18  *****/
19 long long factorialR(long long num)
20 {
21     if (num <= 1)
22     {
23         return 1;
24     }
25     else
26     {
27         return num*factorialR(num-1);
28     }
29 }
30
31 /*****
32  * This function will output the fibonacci number at num recursively
33  *-----
34  * INPUT:
35  *     num - number of numbers in series to calculate
36  * OUTPUT:
37  *     fibonacci number
38  *****/
39 long fibR(long num)
40 {
41     if (num <= 1)
42     {
43         return num;
44     }
45     return fibR(num-1) + fibR(num-2);
46 }
```