Review Activity 6

Recursion in C/C++

1) Write a recursive function that takes a single integer as input and then prints that integer in reverse (e.g., for 12345 as input, the function prints 54321).

2) Implement a recursive function that takes a single integer as input and then prints the digits of that integer one digit per line (e.g., for 12345 as input, the function prints "1 \n 2 \n 3 \n 4 \n 5 \n" with no spaces).

3) Write a recursive function that will compute the sum of a series from 1 to n for a given n (i.e., 1 + 2 + … + n).

4) Implement a recursive function that will print out the series of squares from 1 to n for a given n (i.e., 1^2, 2^2 … n^2).

5) Write a recursive function that finds the largest integer divisor of a given integer other than itself (e.g., for 15 as input, the function returns 5).

6) Write a recursive function that checks if a given string is a palindrome (e.g., "aba" is a palindrome).

7) Write a recursive function that determines if the given number is a prime number. The smallest prime number is two. The function takes a single `unsigned int` as input, and returns `true` if the number is a prime and `false` otherwise. You need to use recursive helper functions.