CSCI 1228 Week 12 Lab Activity in C++

First

Design, write and test a recursive C++ function that takes a single positive integer as its only input parameter and returns the number of times that 3 divides evenly into that integer. For example, if the input is 18, the function should return 2; if the input is 29, the function should return 0. Call your function numberOfTimes3IsAFactor, and when you are finished, put the function in a file called numberOfTimes3IsAFactor.cpp that will compile separately and put this file into a folder called week12 on your K: drive.

Second

Design, write and test a recursive C++ function that takes a single positive integer as its only input parameter and writes out each digit that appears in that integer on a line by itself, at the left margin. The digits must appear in the output in the same order they appeared in the input integer. Call your function WriteDigitsOnSeparateLines, and when you are finished, put the function in a file called WriteDigitsOnSeparateLines.cpp that will compile separately and put this file into a folder called week12 on your K: drive.

Third

Design, write and test a recursive C++ function that takes a single positive integer as its only input parameter and returns the value with each adjacent pair of integers reversed. For example, if the value input is 1234, the value returned must be 2143. The input value is always regarded as having an even number of digits. For example, if the input value is 301, then the value returned must be 3010. That is, a value with an odd number of digits is regarded as having a 0 as its first digit. Call your function digitPairsReversed, and when you are finished, put **just** that function into a file called digitPairsReversed.cpp that will compile separately, and put this file into a folder called week12 on your K: drive.