Assignment 6

Due Wednesday by 7pm   **Points** 120

Don't use any loops when writing your recursive functions. If you do, there's a very good chance your function won't be truly recursive. **Also don't use any static variables.**

You are free to use helper methods on either of the projects.

Project 6.a

Write a recursive function named *summer* that takes two parameters - an array of doubles and the size of the array - and returns the sum of the values in the array. The size parameter does not have to be the actual size of the array. It will be at the top level, but at the lower recursive levels it can be the size of the sub-array being worked on at that level.

The file must be called: **summer.cpp**.

Project 6.b

Write two **recursive** functions - one should take as a parameter a C++ string of '1's and '0's that are the binary representation of a positive integer, and return the equivalent int value; the other should take as a parameter a positive int value, and return a C++ string of '1's and '0's that are the binary representation of that number (no leading zeros). The functions should be named *binToDec* and *decToBin*. Do not use any number base conversion functionality that is built into C++.

The file must be named: **converter.cpp**

Conversion help:
    http://www.wikihow.com/Convert-from-Decimal-to-Binary   (http://www.wikihow.com/Convert-from-Decimal-to-Binary)
    http://www.wikihow.com/Convert-from-Binary-to-Decimal   (http://www.wikihow.com/Convert-from-Binary-to-Decimal)