



Columbia College  
Vancouver, Canada

**Introduction to Computer Science and Programming 1**  
**CSCI120**

**Chapter11: Recursion**

Sample Coding

**Note:** This document has been designed and developed as part of an initiative for creating an OER (Open Education Resource) package for the course CSCI 120 at Columbia College.

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## Problem1

- Write a function which receives a list of string and concatenates all string in the list and returns it. (recursive function)

## Problem2

- Write a recursive function that receives a string and calculates all permutation of the given input string and prints them.

## Problem3

- Write a recursive function that receive a number n as its input parameter and prints the following pattern. For instance, if  $n = 4$

```
*  
**  
***  
****
```

## Problem4

- Write a recursive function which receives an integer, n, and calculates  $\text{Log}_2^n$  and returns it.

**Good Luck ☺**