

Programming Assignment Problems

 pingala.iiit.ac.in/courses/cs0-101-m24/assessments/I2a/writeup

Lab 2

Problem 1: Print a Multiplication Table

Write a C program that prints the multiplication table of a given number up to 10. For example, if the user inputs 5, the program should print the multiplication table for 5 from 5 x 1 to 5 x 10

Input Format:

A positive integer n .

Constraints:

$n \leq 100$

Output Format:

The multiplication table of the entered integer, space-separated on the same line.

Example:

Input:

4

Output:

4 8 12 16 20 24 28 32 36 40

Note: A space is added after each result, including the last one.

Exact output expected for the above input is "4 8 12 16 20 24 28 32 36 40 "

Problem 2: Game Score Collector

You are a game developer working on a new scoring system for a game. The game records scores as players progress through levels. Your task is to calculate the total score a player achieved before encountering a special event indicator,

which is represented by a score of 0. When you see a 0, it signifies the end of the scoring session. You need to sum all the scores recorded before this event.

Input Format:

The input consists of two lines:

- The first line contains an integer n representing the number of scores.
- The second line contains n integers separated by spaces, where each integer represents a score. The list ends with a 0, which serves as the special event indicator and should not be included in the total score.

Output Format:

Output a single integer representing the total score accumulated before the special event indicator 0.

Constraints:

- $1 \leq n \leq 1000$
- $1 \leq \text{score} \leq 10^{12}$
- The integer 0 will appear atleast once in the list.

Good luck!

Example:

Input:

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5
10 20 30 0 40
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Output:

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60
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In this example, the sequence is 10 20 30 0 40. The total score before the 0 is $10 + 20 + 30 = 60$.

Problem 3: Factorials

You are given a number n . Calculate the factorial of the number.

Input Format:

First line contains an integer n .

Output Format:

Print the factorial of the number n

Constraints:

$$0 \leq n \leq 18$$

Examples:

Input: 1

Output: 1

Input: 3

Output: 6

Submission Guidelines

Do not rename any files given in the handout. Only write the code in the specified C files in the respective directories.