

## Assignment - 03

### 1. Perfect Number Checker

A perfect number is a positive integer that is equal to the sum of its proper divisors, excluding itself. For example, 28 is a perfect number because its proper divisors are 1, 2, 4, 7, and 14, and their sum is 28.

Write a C program that checks whether a given positive integer 'n' is a perfect number or not. Your program should take 'n' as input and determine if it meets the criteria for being a perfect number.

Sample Input	Sample Output
28	Yes
56	No
6	Yes
14	No

### 2. Product of digits calculator

Write a C program to input a number from the user and calculate the product of its digits.

Sample Input	Sample Output
123	6
234	24
44	16
56	30

### 3. Prime Sum

Write a C program to find the sum of all prime numbers between 1 to n using a loop.

Sample Input	Sample Output
10	17
11	28
25	100

Each problem contains **5 marks**. The mark distribution is as follows:

#### Mark Distribution:

**5**

1. Properly taking inputs and saving them. (1)
2. Solving logic and proper implementation. (3)
3. Properly showing outputs. (1)

#### Submission guideline:

Solve each problem in a single C file. Create a folder with your student ID. Put the 3 source files (only .c files) into the folder. Zip the folder and submit it in **LMS**. If your ID is 12345, the zip file should be 12345.zip.

**Deadline:** 15-12-2023 (08:00 AM) Please remember this is a strict deadline. Under no circumstances, this deadline will change. **Failure to submit during the deadline will result in zero grades.**

**DO NOT COPY from the internet, seniors, batchmates, or any other sources. You are always welcome to discuss and find the solutions together, but you must write your own code. If found out, there will be -100% marks reduction.**

**DO NOT PUT the question in chatGPT and ask it to write the answer. You may use**

the tool to learn more about the concepts or take additional help ( such as how to use certain methods or how to do certain concepts) but do not directly use it to write code for the problem. If found out, there will be -100% marks reduction.