

ISLAMIC UNIVERSITY OF TECHNOLOGY(IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
Department of Computer Science and Engineering (CSE)

CSE 4272: Computer Programming
Lab 3

Objectives:

- Introduction to loops in structured programming
- Basic usage of loops

Tasks:

1. Write a program that takes an integer of any length as input and print the sum of its digits.

Example:

Sample Input	Sample Output
3245	14
78687	36

2. Write a program that prompts the user to enter a number n and then prints all even squares between 1 and n.

Example:

Sample Input	Sample Output
100	1 4 16 36 64 100

3. Write a program that, given an integer, determines for each digit that makes up the integer whether it is a divisor. Count the number of divisors occurring within the integer.

Example: 124 consists of digits 1, 2, and 4. Each of the digits is a divisor of the integer 124. So the program will return 3 as an output.

Example:

Sample Input	Sample Output
124	3
101	2

4. Write a program that takes an integer of any length as input and checks whether the number is prime.

Example:

Sample Input	Sample Output
43	YES
57	NO

5. Alice and Bob are playing game called “Jungle Run”. They decided to make a tournament out of it. This tournament will have certain rounds in total. The person who runs the longest is the winner of that round. If they both ran the same meters, it would be considered a draw. Write a program that will take number of rounds and the meters run by both players (first Alice, then Bob) in each round and declare the winner and the scores of both players.

Example:

Sample Input	Sample Output
3 5 3 6 6 7 10	No winner 1 1
5 17 99 28 16 30 8 2 3 85 20	Alice Winner 3 2