Central Asian University

Engineering school

Department of Industrial Engineering

Fall 2025 - Week 10

Programming problem sets

1. [prime-number] Verify the number is prime or not (divisible to 1 and itself).

Create a function named isPrime() that checks whether a given integer is a prime number. The function should return true if the number is prime, otherwise false. In main(), ask the user for a number and display whether it is prime or not.

Output: prime, prime, prime, composite, prime, composite

Input: 1, 2, 3, 4, 5, 6

2. [maximum-of-two] Finding maximum of two numbers.

Write a program that defines a function called maxNumber() which takes two integers as input and returns the larger one. In the main() function, take two numbers from the user and display the largest using the function's return value.

Output:
5, 7, 9

Input: 4 5, 7 2, 9 1

3. [square-cube] Write function to generate square and cube of the number.

Write function square and cube that takes input and calculates the square and cube of the given number.

Output: square: 4, 9
cube: 27, 343, 1331

Input: square: 2, 3
cube: 3, 7, 11