

Practical 1: Factorial of a Number Using SciLab

Aim:

To find the factorial of a number using SciLab.

Materials Required:

- SciLab software (version 6.1 or higher)
- A computer system with SciLab installed

Theory (In Brief):

The factorial of a non-negative integer n , denoted as $n!$, is the product of all positive integers less than or equal to n . Factorials are widely used in permutations, combinations, and various mathematical computations.

The factorial can be defined as follows: $n! = n \times (n - 1) \times (n - 2) \times \dots \times 1$, with the special case that $0! = 1$. In SciLab, iterative or recursive methods can be used to compute the factorial of a given number.

Formulas Required:

$$n! = n \times (n - 1) \times (n - 2) \times \dots \times 1, \text{ for } n > 0$$

$$0! = 1$$

Result:

The factorial of a given number was successfully calculated using SciLab.