

C++ Fundamentals: Exam Preparation

The following tasks should be submitted to the SoftUni Judge system, which will be open starting Tuesday, 9 January 2018, 18:00 (in the afternoon) and will close on Saturday, 13 January 2018, 23:59. Submit your solutions here:

<https://judge.softuni.bg/Contests/Compete/Index/916>.

For this exam, the code for each task should be a single C++ file, the contents of which you copy-paste into the Judge system.

Please be mindful of the strict input and output requirements for each task, as well as any additional requirements on running time, used memory, etc., as the tasks are evaluated automatically and not following the requirements strictly may result in your program's output being evaluated as incorrect, even if the program's logic is mostly correct.

You can use C++03 and C++11 features in your code.

Unless explicitly stated, any integer input fits into **int** and any floating-point input can be stored in **double**. On the Judge system, a C++ **int** is a **32-bit** signed integer and a C++ **double** is a **64-bit** IEEE754 floating point number.

NOTE: the tasks here are NOT ordered by difficulty level.

Task 1 – Sequence (Task-1-Sequence)

You are given a sequence of integer numbers.

Find the length of the longest subsequence of increasing numbers in the sequence

Input

The first line of the standard input will contain a single positive integer number **N** – the number of integers.

The second line of the standard input will contain exactly **N** integer values, separated by single spaces – the values.

Output

A single line, representing the length of the longest subsequence of increasing values.

Restrictions

$0 < N \leq 1000$;

The total running time of your program should be no more than **0.1s**

The total memory allowed for use by your program is **16MB**

Example I/O

Example Input	Expected Output
13 25 7 9 11 13 15 17 21 23 27 3 5 19	9