C++ Fundamentals: Exam 2

The following tasks should be submitted to the SoftUni Judge system, which will be open starting **Sunday, 3 February 2019, 09:00** (in the morning) and will close on **Sunday, 3 February 2019, 15:00**.

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 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 4 - The Matrix

Write a program make a matrix that calculates the **SUM** of the simple numbers **BELOW 2 diagonals.**

HINT - Simple number is a number that can be divided by 1 and himself (1, 3, 5, 7, 13, 17 ...)

The maximum size of matrix should be 100x100

EXAMPLE 1 :

Matrix n = 3

1 3 3

1 5 3

1 2 3

*** 3 ***

1 * 3

*** 2 ***

***** - Diagonals

2 - Is the simple number under the 2 diagonals

EXAMPLE 2 :

Matrix n = 5

1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5

***** 2 3 4 *****
1 ***** 3 ***** 5
1 2 ***** 4 5
1 ***** 3 ***** 5
***** 2 3 4 *****

*** - Diagonals**

3 + 3 + 2 = 8

8 - Is the SUM of the simple numbers

Example I/O

Example Input	Expected Output
3 2 4 5 5 3 2 1 2 5	**2**

5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5	**8**