# C++ Programming: Judge Assignment 2 (JA2)

The following tasks should be submitted to the SoftUni Judge system, which will be open starting Saturday, 22 April 2017, 10:00 (in the morning) and will close on Sunday, 30 April 2017, 23:59. You will be provided with a link to the “contest” (where you will submit the assignment) later.

Solutions for each task will be submitted in the form of compressed archive (.zip) files, containing .h and .cpp files. Depending on the task, some .h and/or .cpp files will be available in the Judge system and your code will be compiled alongside them (so that either your files can use them, or the other files will use the files you submitted). The files available for a task we will call a “solution skeleton”. Detailed instructions on what solution skeletons you are provided with, as well as instructions for submitting your code, are given in each task.

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.

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

**NOTE: memory and time restriction for these tasks may be altered slightly up to Friday 21 April 23:59 (we’re still testing out the feature for multiple file submission for C++ projects). Please check the task descriptions in the Judge system (when it opens on 22 April, 10:00) for the final memory and time restrictions.**

## Task 2 – Divisible by 45 (JA2-Task-2-Divisible-by-45)

You are given a BigInt.h file with the implementation of a BigInt class which can represent positive integers of any size, can calculate sums of such integers, and has some other useful methods and operators defined. You can use this class in your program if you want to.

* The Judge system has a copy of this class and will compile your code in the same directory
* To use it, you can write #include "BigInt.h" in your code
* DO NOT submit or modify BitInt.h, as the system will overwrite it with its version. If you want to extend the functionality of that class, you will need to do it in another file

Your task is to write a program which finds all the numbers, which are divisible by 45, inside a specified range.

### Input

Exactly 2 lines, each containing a single integer number – with an arbitrary length, but no more than 100 digits.

The first line contains the start of the range (inclusive) S

The second line contains the end of the range (exclusive) E

### Output

One or more lines, with a single integer number each, representing the numbers divisible by 45 in the given range, in ascending order (i.e. start from the smallest number divisible by 45 in the range and print each of them on a separate line).

### Restrictions

The range will be such that total numbers divisible by 45 will be no more than 100

The number of digits in the numbers specifying the range will NOT exceed 100

0 < S < E - 1

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

The total memory allowed for use by your program is 5MB

### Example I/O

|  |  |
| --- | --- |
| Example Input | Expected Output |
| 1  100 | 45  90 |
| 1  90 | 45 |
| 450000000000000000000000000000000000000013  450000000000000000000000000000000000000100 | 450000000000000000000000000000000000000045  450000000000000000000000000000000000000090 |