Notice

For all tasks:

- Time and memory limits are available in the "Overview" page in the contest system.
- There is an attachment package that you can download from the contest system, containing sample graders, sample implementations, example test cases, and compile and run scripts.
- You may make up to 50 submissions for each task, and you have to submit exactly one file in each submission.
- When testing your programs with the sample grader, your input should match the format and constraints from the task statement, otherwise, unspecified behaviors may occur. Every two consecutive tokens on a line are separated by a single space, unless another format is explicitly specified.
- When you test your code on your local machine, we recommend you to use scripts in the attachment packages. Please note that we use the `-std=gnu++17` compiler option.

Convention

The task statements specify signatures using generic type names `void`, `int`, `int64`, `int[]` (array), and `int[][]` (array of arrays).

In C++, the graders use appropriate data types or implementations, as listed below

void	**int**	**int64**	**int[]**
void	int	long long	std::vector<int>

int[][]	**length of array a**
std::vector<std::vector<int>>	a.size()