



Notice

For all tasks:

- There is an attachment package that you can download from the contest system.
- The attachment package contains sample graders, sample implementations, example test cases, and compile scripts.
- You may make up to 50 submissions for each task, and you have to submit exactly one file in each submission.
- The name of the file that you should submit is given in the task statement header.
- It should implement the procedures described in the task statement using the signatures provided in the sample implementations.
- You are free to implement other procedures.
- Your submissions must not read from the standard input, write to the standard output, or interact with any other file. However, they may output to the standard error stream.
- Your submissions **must not call `exit()` or `System.exit()`**
- 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.
- In sample grader inputs, 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 package. Otherwise, especially in C++, make sure to add `-std=gnu++17` option to compile.

Convention

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

In each of the supported programming languages, the graders use appropriate data types or implementations, as listed below

Language	<code>void</code>	<code>int</code>	<code>int[]</code>	length of array <code>a</code>	<code>string</code>
C++	<code>void</code>	<code>int</code>	<code>std::vector<int></code>	<code>a.size()</code>	<code>std::string</code>
Java	<code>void</code>	<code>int</code>	<code>int[]</code>	<code>a.length</code>	<code>String</code>

Limits

Task	Name	Time limit	Memory Limit
gift	gift	1.000 second	2.00 GiB
squares	squares	1.000 second	2.00 GiB
routers	routers	1.000 second	2.00 GiB
jelly	jelly	1.000 second	2.00 GiB