General Details

- Input will be given through standard input and output should be written to standard output.

- Programs must not read or write to files.

- Output must match the format outlined in the question exactly in order to be correct.

- Each question's memory and time limits can be found directly underneath the question title, and may vary from question to question.

- After each submission, the contestant will receive feedback from the judge for that submission. A problem is solved correctly if the submission status is 1 and every test case has "ACCEPT" under it after clicking the status icon.

Java

- Ensure that the name of the submitted class is `Main`.

- In accordance with the above, should one decide to submit a file, please ensure the file is named `Main.java`.

- For reading input and writing to output, one has multiple options on how to do so. As an example, one could use `Scanner` for input and `System.out.print()` for output. One may refer to official documentation for more details.

C/C++

- Ensure that your submission contains an `int main()` class.

- For reading input and writing to output, one has multiple options on how to do so. As an example, one could use `scanf()` for input and `printf()` for output. One may refer to official documentation for more details.

- Contestants will not be penalised for memory leaks, but we recommend you do your best to prevent them.

- C programs will automatically be given access to the headers `stdio.h`, `stdlib.h`, `string.h`, `math.h`, `stdbool.h`, and `limits.h`. Inclusion of other headers will not work, for security reasons.

- Programs in C++ will also have access to the following standard libraries, in addition to the C libraries mentioned before:

  - `<algorithm>`

  - `<bitset>`

  - `<cmath>`

  - `<cstring>`

  - `<deque>`

  - `<iostream>`

  - `<list>`

  - `<map>`

  - `<numeric>`

  - `<queue>`

  - `<set>`

  - `<stack>`

  - `<string>`

  - `<unordered_map>`

  - `<utility>`

  - `<vector>`

Python (Py2, Py3, PyPy3)

- For input, Python 2 allows `raw_input()` and Python/PyPy 3 permits `input()`, which is aliased to `sys.stdin.readline()`.

- For output, use the builtin `print` statement in both Python 2 and Python 3.

- When programming in any Python version, the `math`, `random`, `bisect`, `heapq`, `decimal`, `collections`, and `itertools` libraries are imported by default. Attempting to import any other libraries will result in a `RuntimeError`.

- Note: PyPy 3 is functionally identical to Python 3, but runs slightly faster at the expense of using a greater amount of memory.