



# JUDGING NOTES

## 1. The following guidelines apply to clarification requests:

- If a team feels that a problem is stated ambiguously, they may submit a clarification request.
- The judges may answer with "No comment, read problem statement" if they believe that the problem is stated clearly enough.
- The judges will not answer questions about algorithms, test data, etc.

## 2. The following guidelines apply to handling input in programs:

- All input comes from standard input.
- Input size constraints on test cases will be given as part of the problem statements.
- Unless the problem explicitly states otherwise, the input for a problem consists of a single test case. If the input contains multiple test cases, then the problem will also state an upper bound on the number of test cases.
- Your program may be run on multiple input files.

## 2. The following guidelines apply to handling output in programs:

- All output goes to standard output.
- Output formatting should follow the output specification and the sample output in the problem statement. For the most part, The system will ignore additional whitespace where whitespace is expected, but excessive additional whitespace might result in a rejected submission.
- For problems with floating point output, the Judges will accept a range of answers as correct as long as they satisfy the constraints described in the problem statement. These constraints will be specified as an absolute and/or relative tolerance, which will be given.
- Unless a problem specifically indicates that uppercase or lowercase letters are important, then either will be accepted. For example, "Yes" or "yes" would be treated the same, but "yse" will be judged as "Wrong Answer".

## 3. The following guidelines apply to Judge responses:

- A judge response of "Accepted" means that your submission was correct!



- A judge response of “Wrong Answer” means that your program’s output did not match the judges’ output within the specified tolerance.
- A judge response of “Time Limit Exceeded” means that your program ran for too long on at least one test file.
- A judge response of “Runtime Error” means that your program crashed before completing. There may be many causes for this, including but not limited to division by zero, subscript out of bounds, out of memory, etc.
- A judge response of “Compile Error” means that your submission was never run because it did not compile.
- Because your program may be judged on more than one input file, if your program has more than one error (say, “Time Limit Exceeded” and “Wrong Answer”), then you may get either error as judgment. See the Kattis documentation for details on how the judging works.
- The time limits for each problem will be specified in the problem statement. If your program runs longer than the specified time limit on ANY test file, your submission will be judged “Time Limit Exceeded,” unless it receives another incorrect judgment.
- There is no such thing as “Presentation Error” or “Format Error.” If you misspell the word “impossible,” for example, and the problem requires that word as output, then your submission will be judged as “Wrong Answer.”
- If you submit a solution that has a Compile Error, then you will be notified of it (just as any other error). However, Compile Errors do not count toward penalty time.
- If a submission is “Accepted” then no subsequent submissions on that problem will count against you, even if they are not correct.

3. The following guidelines apply to contest scoring:

- The problems are all of equal value.
- A team can be credited with solving a given problem at most once.
- The scoreboard is sorted by the greatest number of problems solved. The team with the most solved problems wins.
- Ties in number of solutions are broken by fewest total time
- Ties in number of solutions and fewest total time are broken by earliest time
- Teams accrue one minute from the beginning of the contest per problem, until they solve that problem. For example, if a team solves a problem after one hour from the start of the contest, that’s 60 minutes. If they solve another problem after two hours from the



start of the contest, that's an additional 120 minutes, for a total of 180.

- Twenty (20) penalty minutes are assessed to a team for each of their incorrect submissions of a problem, with the exceptions noted below.
  - No penalty minutes are assessed to a team for problems that they never solve.
  - No penalty minutes are assessed to a team for their submissions of a problem that they have already had accepted, regardless of the judgment.
  - No penalty minutes are assessed for compilation errors.