# Online Judges

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# Online Judges







Project Euler net

















# Competitive programming

# From wikipedia

A programming competition generally involves the host presenting a set of logical or mathematical problems to the contestants, and contestants are required to write computer programs capable of solving each problem.

Judging is based mostly upon number of problems solved and time spent for writing successful solutions, but may also include other factors (quality of output produced, execution time, program size, etc.)

# Common Veredicts I

## **Submissions**

Your program will be compiled and run in judge system, and the automatic judge will test it with some inputs and outputs, or perhaps with a specific judge tool. After some seconds or minutes, you'll receive by e-mail (or you'll see in the web) one of these answers:

# Compile Error (CE):

The compiler could not compile your program. Of course, warning messages are not error messages. The compiler output messages are reported you by e-mail.

# Accepted (AC):

OK! Your program is correct! It produced the right answer in reasonable time and within the limit memory usage. Congratulations!

# Common Veredicts II

# Wrong Answer (WA):

Correct solution not reached for the inputs. The inputs and outputs that we use to test the programs are not public so you'll have to spot the bug by yourself (it is recomendable to get accustomed to a true contest dynamic ;-)).

# Runtime Error (RE):

Your program failed during the execution (segmentation fault, floating point exception...). The exact cause is not reported to the user to avoid hacking. Be sure that your program returns a 0 code to the shell. If you're using Java, please follow all the submission specifications.

# Time Limit Exceeded (TLE):

Your program tried to run during too much time; this error doesn't allow you to know if your program would reach the correct solution to the problem or not.

# Caribbean Online Judge



### **Pros**

- Some Spanish descriptions
- Progressive contest
- Ranks & Leaderboards
- Code Backup
- Opposition of the problems of the problems.
- Frozen scoreboard

### Cons

- Most recycling problems
- Private contests
- Very strict with I/O
- Access
- Frozen scoreboard

## Other resources

Caribbean ICPC Information

# Universidad of Valladolid Online Judge



### **Pros**

- Vast quantity of problems
- Many online references
- ICPC Related contests
- Good Analytic's Tools
- CP Book is based completely on it

### Cons

- Poor Online Connections
- No code backup
- No feedback
- Heavy traffic of users (delays in response)

## Tools







## Codechef



#### **Pros**

- Active Contests Schedule
- 2 Community Blogs, Resources
- Problems level clasification
- Online Compiler
- Sponsors & Prizes
- Code Backup

## Cons

- Troubleshooting with large audiences
- Math problems tend to be specific
- Not unified rank

### Contest







# HackerRank



### Pros

- Visited by many recruiters
- Prequently contests
- Code Backup & OC
- Editorial if AC
- More than Algorithmic Challenges

## Cons

- No much resources to learn
- Pew sense of community

## Tools



# **TopCoder**



### **Pros**

- Profitable
- Class vs Complete Program
- Rank & Prizes & Achievements
- More than Algorithmic Challenges
- Time to compete & Hack :)
- Excellence as reference

#### Cons

- Ontest Platform: BETA?
- Only 3 problems by contest

# Codeforces



### **Pros**

- Proactive community
- Real time Hacking exp.
- GYM & Feedback
- Problem Set & Others solutions
- Code Backup
- API

## Cons

- Unavailable during large contests
- Rare Div.1 contests
- Its running over windows

### **Tools**



# Math , Games & Fight

**Project Euler** net

ideone.com





Q & A