Contest strategy

Contents

- Reading
- Planning
- Coding
- Testing
- Debugging
- Time management

Reading

- Read all the problems before doing any coding
- Make notes
- How long should you spend on reading?

Planning

- Don't implement as soon as you have one solution
- Estimate the big-O time
- Estimate the memory
- Check that your solution works
- Implement the simplest possible solution
- How long do you spend on planning?
- Mathematical modelling?

Coding

- Don't try to be too clever
- When do you go back and plan?

Testing

- Unit testing
- White-box testing
- Regression testing
- Speed testing
- Boundary cases and special cases
- Comparative testing
- Compiler help: `-Wall;-Wall -O2;-ftrapv`
- Code review
- Assertions: `assert(condition);`
- How long do you spend on testing?

Debugging

- Learn to use a debugger
- What do you do when you find a bug?
- When do you cut your losses and give up?

Time management