Solving Programming Challenges

TOTAL POINTS 5

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1. What will you typically need to implement yourself in the programming assignments if you program in C++, Java or Python? `1 point`

   - ⦿ Just the solution of the problem.
   - ○ Just reading the input.
   - ○ Reading input, writing output and the solution to the problem.
   - ○ Just writing the output.

2. Your program in C, C++ or Java thinks that the product of numbers 50000 and 50000 is equal to -1794967296. What is the most probable reason? `1 point`

   - ⦿ Integer overflow.
   - ○ The input data is incorrect.
   - ○ Compiler error.
   - ○ The problem statement is wrong.

3. Which tests should you perform before submitting a solution to the programming assignment? `1 point`

   - ○ Just submit the program and see if it passes the assignment.
   - ○ Just check that the answers for the examples from the problem statement are correct.
   - ○ Test on the examples from the problem statement. Then make a few other small tests, solve them manually and check that your program outputs the correct answer. After all these tests passed, submit the solution.
   - ⦿ Test on the examples from the problem statement. Then make a few other small tests, solve them manually and check that your program outputs the correct answer. Generate a big input and launch your program to check that it works fast enough and doesn't consume too much memory. Test for corner cases: smallest allowed values and largest allowed values of all input parameters, equal numbers in the input, very long strings, etc. Then make a stress test. After all these tests passed, submit the solution.

4. Where does the input data come from when you implement a stress test? `1 point`

   - ⦿ You generate valid input data as a part of the stress test implementation.
   - ○ You download and use the tests we've prepared to check your solution to the problem.
   - ○ You enter the input data manually.

5. If you submit a solution of a programming assignment, but it does not pass some of the tests, what feedback will you get from the system? `1 point`

   - ⦿ If it is one of the first few tests, you will see the input data, the answer of your program and the correct answer. Otherwise, you will only see either that the answer of your program is wrong or that your program is too slow or that your program uses too much memory.
   - ○ You will only get the feedback that your program either passed or did not pass.
   - ○ You will see the input data, the answer of your program, the correct answer, how long did your program work and how much memory did it use for each of the tests.