

Coding, Testing, Debugging

- start testing with any examples provided with the program specifications, but don't stop with just those
 - try to identify what will test the full functionality of your program
- for programs that compute something, have some idea what a correct answer is,
 - or at least what is a plausible answer

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- utilize `System.out.println` to trace what is happening in the program to find the point where what it does and what you think it does diverge
 - print distinctive text to trace flow of control – did the program even get to this line?
 - print values of variables to understand why something happened / what went wrong
 - include context text so there is no question about what you are seeing
- understand the real error before fixing anything
 - have a reason why the fix will actually fix the problem
- don't assume anything – print out all relevant values
- take a break and come back with fresh eyes