

How to Not Screw Up on the AP Exam

i.e. How to Pass

#1: Time management

- Section 1:
 - 1 hr 15 min / 40 multiple-choice questions
 - About 2 min / question
- Section 2:
 - 1 hr 45 min / 4 free-response questions
 - About 26 min / question
 - Usually 2 parts / question
 - About 13 min / question

#2: Attempt all the questions

- No deductions for incorrect answers on the multiple-choice portion
- Make educated guesses if you don't know the answer
- Make wild guesses if you can't make educated guesses

#3: You don't need computers

- Hand trace code for complicated problems
- Simplify complicated array questions by hand tracing code with smaller array of 2 or 3 elements
- Same for matrices
- Easy to figure out if it works

#4: Be sure

- Many questions ask you to compare two pieces of code that supposedly implement the same algorithm.
- Often one will fail because it doesn't handle endpoint conditions properly (e.g. `num == 0`)
- Keep a lookout for endpoint conditions; don't get tricked because you're rushing

#5: Use the quick reference

- You are given a copy of the standard Java classes and interfaces with methods
- This is your cheat sheet; it tells you what some of the more obscure methods do
- Especially useful for FRQs

#6: Skim the FRQs before you begin

- Each FRQ is worth 9 points
- Start with the one you feel most comfortable with (gives you a psychological leg up)
- Your brain will work on the other problems subconsciously
- If you run out of time, you'll be running out of time on the one you had trouble answering anyway

#7: Go for partial credit

- Partial credit is awarded for FRQs
- Part (a) and Part (b) are graded independently
- You can be awarded points for anything you do right
 - E.g. Correct class declaration, correct method header, correct default return value, correct for loop

#8: Use what you got

- Use public methods provided in the question when possible and necessary
- Rewriting existing methods will not get you full credit
- Use methods from quick reference
 - Look at quick reference if you forgot how to use a method or what the parameters are
- You may use other standard Java library methods if you know them, but questions can be answered with only the AP Java subset

#9: Follow directions

- If an algorithm is given or suggested, follow it
- Don't do something complicated (and possibly stupid)
- Make sure you meet requirements of the question
 - Correct post-condition or correct return value

#10: Just hack

- Don't write comments, chances are they will be ignored
- Brief comments for self-clarification are okay
- Write code that works; it doesn't matter if it is efficient or not (unless specified)

#11: Don't cross it out (yet)

- Don't cross any answers out unless you have a replacement for it
- Graders are instructed not to read anything crossed out, even if it is correct

#12: Humans are only human

- You are writing FRQ answers for humans, not computers
- Make sure humans can read and understand your answer
 - Write legibly
 - Indent correctly
 - Make appropriate variable/method names
 - Use correct variable/method names
 - Make your code readable, not convoluted
 - Just because it works doesn't mean it's clear

#13: Avoid penalties

- 1-point penalty for the following:
 - Extraneous code that causes side effects (e.g. `System.out.println()`, compile errors)
 - Local variables used but none declared
 - Destruction of persistent data (e.g. changing value referenced by parameter)
 - Void method or constructor that returns a value

#14: We forgive you

- Don't intentionally do stupid things but occasional mistake on FRQs is okay
- Most semicolons are there
- No ambiguity
- No extra side effects
- Algorithms make sense
- Full list of non-penalties: http://media.collegeboard.com/digitalServices/pdf/ap/ap14_comp_sci_scoring_guidelines.pdf

#15: Get 41%

- 75% for a score of 5
 - 56% for a score of 4
 - 41% for a score of 3
 - 31% for a score of 2
 - Anything lower is a 1
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- Multiple-choice and FRQ are 50% each; equally important