

## Simple Things Students Can Do To Improve Their AP Stats Score

1. Read the problem carefully, and make sure that you understand the question that is asked. Then read it again! Circle or highlight key words and phrases. When you finish writing your answer, re-read the question to make sure you haven't forgotten anything important.
2. Write your answers completely but concisely. Don't feel like you need to fill up the white space provided for your answer. Long, rambling paragraphs suggest that the test taker is using a shotgun approach to cover up a gap in knowledge.
3. Don't provide parallel solutions. If multiple solutions are provided, the worst one will be the one that is counted.
4. Only use terms and symbols you know. It's better to explain in your own words than to use a technical term incorrectly. If you are unsure about notation, use words instead of symbols.
5. A computation or calculator routine will rarely provide a complete response. Even if your calculations are correct, weak communication can cost you points. Be able to write simple sentences that convey understanding.
6. Don't write calculator commands!!
7. Don't write unsupported answers! Show your work!
8. Don't skip the investigative task (free response # 6)
9. Beware of careless use of language. Distinguish between sample and population; data and model; lurking variables and confounding variables;  $r$  and  $r$ -squared, etc. Know what the technical terms mean and use them correctly.
10. Don't shoot yourself in the foot. Don't describe things that aren't there! Answer the question then stop writing!
11. Understand strengths and weaknesses of different experimental designs. Study examples of completely randomized designs, paired designs, matched pair designs and block designs.
12. Recognize an inference setting. Language such as "Is there evidence to show that..." means that you are expected to perform statistical inference.
13. Know the steps for performing inference: Hypotheses, conditions, identify the test or interval, calculate correctly, conclusion in context.
14. Be able to interpret generic computer output.

### The Exam

The AP Stat exam has 2 sections that take 90 minutes each. The first section is 40 multiple choice questions and the second section is 6 free response questions. Each section counts for half of the overall score. The last free response question counts for 25% of the section 2 score. You are allowed to use your calculator on the entire exam and a standard set of formulas and tables is printed in the test booklet.

### General Tips for Writing Free Response Answers

#### Understand Your Obligation as a Test Taker

You are being evaluated not only on the correctness of your answers, but also on your ability to communicate the methods you used to reach them. The answer is everything you write down, not just the last line or number at the end. Convince the reader that you understand the key concepts in the question. Don't just give them the numbers and hope they will assume you understand the concepts.

#### Be smart about multi-part questions

Most AP Stat questions have several parts. Read all the parts before you start answering and think about how they might be related (sometimes they aren't). If the last part asks you to answer a question based on your results to previous parts, be sure to actually use your prior results to answer. If you couldn't do one of the previous parts, make up an answer and explain what you would have done.

#### Answer the question you are asked

The test writers spend over a year writing these questions. They word them carefully and specifically. Spend more time reading and less time writing to make sure you really understand what is being asked. When you have answered the question asked, stop writing. They give you much more space than you need. Don't panic because you haven't filled up all the space provided.

### Answer in context

Most, if not all, AP Stat problems will have a real life context. Make sure your answers include the context. This is especially important when defining symbols/variables and writing conclusions.

### Use Vocabulary Carefully

This isn't English class. There's no poetic license here. Terms like Normal, independent, and sampling distribution have specific meanings. Don't say "Normal" if you mean "approximately Normal" and don't mix up populations and samples in either words or symbols.

### Leave enough time for the last question

The last free response question counts for more points and is designed to take 20 to 30 minutes. At least read it first, and if you feel OK about it, go ahead and answer. If it looks hard, you can save it for the end, but no matter what, when there are 30 minutes left in the test, stop and go to the last question.

### Relax

Having met many of the people who write the exam and grading standards, I can assure you they are not out to trick you. They write challenging but straightforward questions designed to give you an opportunity to demonstrate what you have learned. Seize the opportunity and do your best. Keep in mind that you only need to earn roughly 65-70% (it varies from year to year) of the points on the exam to get a 5.