

Mr. Lieb's Top 40

AP Statistics questions you should be sure to look at

From 1998-2011, there have been 24 AP exams given (this includes the overseas, or "B" exams). With six questions per test, that gives **144** possible questions to review. That's a lot. The list below are my "Top 40"—the most well-written and instructive ones, in my opinion. Reviewing these questions steadily in the weeks leading up to the AP exam should definitely help you for the test. After looking at a question, consult the scoring guidelines to see their solution.

Rank	Question	Topic	Why it rocks
1	1998 #1	Sample Means	Straightforward question on an important idea (CLT)
2	1999 #1	Regression	Resid plots, computer printout, slope/y-int interpretation
3	2001 #3	Simulation	Using a random number table to simulate
4	2001 #4	Exp Design	Classic blocking!
5	2001 #5	Matched Pairs t-test	Great example of this type of test
6	2002 #3	Random Variables	The always tricky "add the variances if independent"
7	2002B #3	Exp Design	Some of the wording may confuse -- check solutions
8	2002B #5	Data Analysis	What three features to comment on when comparing?
9	2003 #1	Hybrid	Mixing some data analysis and inference
10	2003 #2	Type I/II errors	How they ask about these topics -- no calculations
11	2003 #3	Probability	Pretty straightforward -- confidence booster?
12	2003 #4	Exp Design	Gets at some of the big issues of design
13	2003 #5	Chi-Square	Test for Independence
14	2003B #5	Hybrid	Exp Design and Inference
15	2004 #3	Probability	Sneaky question -- P-value without a test!
16	2004B #2	Sampling	Issues of bias
17	2004B #5	Hybrid	Data Analysis/Inference -- check solutions
18	2005 #1	Data Analysis	Good example of this kind of problem
19	2006 #4	Inference	Making a confidence interval
20	2006B #1	Data Analysis	Ogive!
21	2006B #3	Probability	Good normal model problem
22	2007 #3	Sample Means	Central Limit Theorem!
23	2007 #5	Inference	Interpreting the P-value
24	2008 #4	Regression	A hard problem -- try and check sol'ns
25	2008B #2	Probability	Just a good question with graphs
26	2008B #5	Probability	Nice problem -- subtracting random variables
27	2009 #2	Probability	Good normal model practice
28	2009 #3	Exp Design	A little tricky, I think
29	2009 #4	Inference	Two sample conf int -- note checking conditions
30	2009B #2	Probability	Good non-standard problem
31	2009B #3	Inference	Two sample test
32	2009B #4	Exp Design	Power gets incorporated into the question!
33	2010 #3	Inference	Note what they mean by interpret conf level
34	2010 #4	Probability	Just an interesting problem
35	2010 #5	Inference	Two sample test
36	1998 #6	Probability	Using a random number table
37	2011 #2	Data Analy/Prob	Good question to review "independence"
38	2011 #3	Exp Design	Rare sampling question -- stratified v. cluster
39	2011B #1	Data Analysis	Comparing distributions
40	2011B #5	Inference	Calculating sample size for a given margin of error