

Name _____ Date _____ Per _____
AP REVIEW PACKET #10 INSTRUCTIONS – due *before* period 2 begins on Thursday, May 9th

- 1) Read the Appendix; pp 581-595. As you read, answer the guided reading questions.
- 2) Do Practice Exam #5, correct your work. Projected AP Score = _____. (see pg 585)

Optional Bonus Activity: Go to <http://learner.org/resources/series65.html>. Watch programs 20 & 21; do the worksheet.

Guided Reading Questions for Packet #10:

- 1) How can the table on pg 579 be used to help you with last minute review?
- 2) Which procedure would be appropriate for constructing confidence intervals about means – for two samples?
- 3) Which conditions need to be checked for Proportions – one sample?
- 4) For regression use ____ - procedures with $df =$ _____.

OK here is the real important stuff – the 35 AP EXAM Hints. Read them carefully, they make a difference.

- 5) Graders want to give you credit... make them understand _____ you are doing, _____ you are doing it, and _____ you are doing it.
- 6) What is as important as statistical knowledge.
- 7) Copy all of hint #3.
- 8) Don't give more than one solution to the same problem – you will receive credit only for the _____ one.
- 9) Avoid _____.
- 10) Read through all six free-response questions, _____ key points.
- 11) If you show calculations carefully, a wrong answer due to a computational error might still result in _____.
- 12) When using a formula, _____ down the formula and then _____.
- 13) Remember that _____ and _____ are not the same.
- 14) Copy all of hint #29.
- 15) Simply saying to “randomly assigning” subjects to treatment groups is usually an incomplete response. What should you do?
- 16) Copy hints 33 – 35.

- 17) Pick your 3 favorite calculator functions and describe what they do.

Video 21 Worksheet: INFERENCE FOR ONE MEAN

1. What unrealistic assumption is used in z-procedures? _____
2. What is the sample standard deviation called? _____
3. When were t-distributions developed? _____
4. What are the two common features of t- and z-distributions? _____
5. There is a family of t-distribution, one for each _____.
6. The t-distributions approach the standard normal distribution as the number of degrees of freedom gets _____.
7. What do high tails in the t-distribution mean? _____
8. As sample size increases, what happens to the sample standard deviation s ? _____
9. How are degrees of freedom computed? _____
10. What two types of paired comparison tests are there? _____
11. In the paired comparison test, what single measurement is used? _____
12. What is one of the examples of matched pairs designs? _____
13. Why are t-tests valuable?
 - a. _____
 - b. _____
 - c. _____

Video 22 Worksheet: COMPARING TWO MEANS?

1. How do two sample studies differ from paired studies? _____
2. In order to test for the difference of two means, we can test the null hypothesis: _____
3. In the Options vs. WIN Programs, what distribution was analyzed? _____
How was the mean found? _____
How was the standard deviation found? _____
What did t equal? _____
4. What is the formula for a confidence interval for two means? _____
5. How are degrees of freedom determined? _____
6. For inference procedures using the two-sample t -statistic, is the true confidence level higher or lower than is claimed? _____ Why does the video use these conservative procedures? _____

7. What conclusion was made about the Options and WIN Programs? _____
8. What was the p -value for the foam "bounce" tests? _____ What did that allow researchers to conclude? _____
9. Why do we generally not make inferences about the standard deviations? _____
10. Complete the statement: t statistics for two means are robust as long as there are no _____ and neither population is strongly _____. The two sample t -procedures are not affected by lack of normality unless _____.