AP Statistics Chapter 9.1 Outline

Significance Tests: The basics

Null hypothesis –

Alternative Hypothesis –

One-sided alternative hypothesis and two-sided alternative hypothesis –

P-value –

Statistically significant at level α -

Type I error –

Type II error –

AP Statistics Chapter 9.2 Outline

Tests about a Population Proportion

Conditions for performing a significance test about a Proportion –

Test Statistic –

Significance Tests: A four-step process –

One-sample z Test for a proportion –

Power and Type II error –

AP Statistics Chapter 9.3 Outline

Tests about a Population Mean

Conditions for performing a significance test about a Mean –

One-sample *t* test for a mean –

Confidence Intervals and significance tests –

Paired data –

Statistical vs. Practical Importance –

9	State the null and alternative hypotheses for a significance test about a population parameter. Interpret a P-value in context. Determine whether the results of a study are statistically significant and make an appropriate conclusion using a significance level. Interpret a Type I and Type II error in context and give a consequence of each. State and check the Random, 10% and Large counts conditions for performing a significance test about a population proportion. Perform a significance test about a population proportion. Interpret the power of a test and describe what factors affect the power of a test. Describe the relationship among the probability of a Type I error (significance level), the probability of a Type II error, and the power of a test. State and check the Random, 10%, and Normal/Large Sample conditions for performing a significance test about a population mean. Perform a significance test about a population mean. Use a confidence interval to draw a conclusion for a two-sided test about a population parameter. Perform a significance test about a mean difference using paired data.	9.1) 1, 2, 4, 5, 10, 12, 16, 19, 23, 26 9.2) 31, 33, 37, 39, 42, 44, 45, 47, 52, 55, 58 9.3) 65, 67, 69, 70, 72, 73, 76, 77, 79, 82, 87 **Spiral Review: Frappy pg.199, T4.12, R5.10, T6.5, T6.11, R7.4** Practice Test Test