



Appendix E: Solution Sheets

By:
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Hypothesis Testing with One Sample

Class Time: _____

Name: _____

1. H_0 : _____
2. H_a : _____
3. In words, **CLEARLY** state what your random variable \bar{X} or P' represents.
4. State the distribution to use for the test.
5. What is the test statistic?
6. What is the p -value? In one or two complete sentences, explain what the p -value means for this problem.
7. Use the previous information to sketch a picture of this situation. **CLEARLY**, label and scale the horizontal axis and shade the region(s) corresponding to the p -value.



8. Indicate the correct decision (“reject” or “do not reject” the null hypothesis), the reason for it, and write an appropriate conclusion, using **complete sentences**.
 1. Alpha: _____
 2. Decision: _____
 3. Reason for decision: _____
 4. Conclusion: _____

- Construct a 95% confidence interval for the true mean or proportion. Include a sketch of the graph of the situation. Label the point estimate and the lower and upper bounds of the confidence interval.



Hypothesis Testing with Two Samples

Class Time: _____

Name: _____

- H_0 : _____
- H_a : _____
- In words, **clearly** state what your random variable $\bar{X}_1 - \bar{X}_2$, $P'_1 - P'_2$ or \bar{X}_d represents.
- State the distribution to use for the test.
- What is the test statistic?
- What is the p -value? In one to two complete sentences, explain what the p -value means for this problem.
- Use the previous information to sketch a picture of this situation. **CLEARLY** label and scale the horizontal axis and shade the region(s) corresponding to the p -value.



- Indicate the correct decision (“reject” or “do not reject” the null hypothesis), the reason for it, and write an appropriate conclusion, using **complete sentences**.

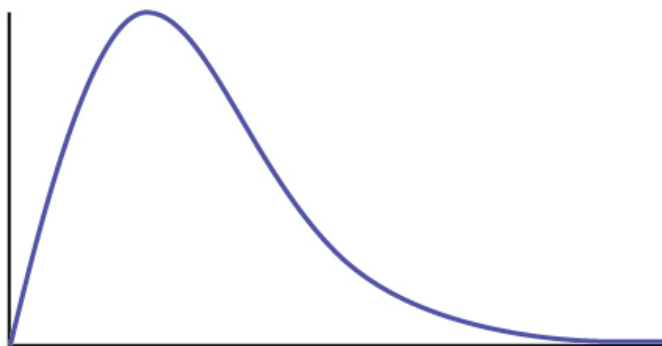
1. Alpha: _____
 2. Decision: _____
 3. Reason for decision: _____
 4. Conclusion: _____
9. In complete sentences, explain how you determined which distribution to use.

The Chi-Square Distribution

Class Time: _____

Name: _____

1. H_0 : _____
2. H_a : _____
3. What are the degrees of freedom?
4. State the distribution to use for the test.
5. What is the test statistic?
6. What is the p -value? In one to two complete sentences, explain what the p -value means for this problem.
7. Use the previous information to sketch a picture of this situation. **Clearly** label and scale the horizontal axis and shade the region(s) corresponding to the p -value.



8. Indicate the correct decision (“reject” or “do not reject” the null hypothesis) and write appropriate conclusions, using **complete sentences**.
1. Alpha: _____
 2. Decision: _____
 3. Reason for decision: _____
 4. Conclusion: _____

F Distribution and One-Way ANOVA

Class Time: _____

Name: _____

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1. H_0 : _____
2. H_a : _____
3. $df(n) =$ _____ $df(d) =$ _____
4. State the distribution to use for the test.
5. What is the test statistic?
6. What is the p -value?
7. Use the previous information to sketch a picture of this situation. **Clearly** label and scale the horizontal axis and shade the region(s) corresponding to the p -value.



8. Indicate the correct decision (“reject” or “do not reject” the null hypothesis) and write appropriate conclusions, using **complete sentences**.
 1. Alpha: _____
 2. Decision: _____
 3. Reason for decision: _____
 4. Conclusion: _____