Chapter 12: Significance Tests in Practice

Key Vocabulary:

- standard error
- t distribution
- degrees of freedom
- paired t-test
- one-sample z statistic
- one-sample t statistic
- two-sample t statistic
- robust
- power

Calculator Skills:

- 1-PropZTest
- 1-PropZInt

12.1 Tests about a Population Mean (pp.742-765)

1. State the null hypothesis for a *one sample t-test.*

2. State and use diagrams to illustrate the three possible alternative hypotheses for a *one sample t-test*

3. Give the formula for the *one-sample t-statistic*, and define each variable in the equation.

4. How is the *t-statistic* interpreted?

5. What information would lead us to apply a *paired t-test* to a study, and what would be the statistic of interest?

12.2 Tests about a Population Proportion (pp.766-777)

1. State the null hypothesis for a *one proportion z-test.*

2. State and use diagrams to illustrate the three possible alternative hypotheses for a *one proportion z-test.*

3. Give the formula for the *one-proportion z-statistic*, and define each variable in the equation.

4. What assumptions must be met in order to use *z procedures* for inference about a proportion?

5. What additional information does a confidence interval provide that a significance test does not?