

Chapter 9

1. What is the difference between the null hypothesis and the alternative hypothesis?

The null hypothesis is considered to be true. When the null hypothesis is rejected, the alternative hypothesis is regarded as the truth.

2. When is the hypothesis one-sided and when is it two-sided?

One-sided if alternative; larger or smaller than. Two-sided when alternative hypothesis; not equal to.

3. What are the two possible errors in hypothesis testing?

Type I error: rejecting a true null hypothesis

Type II error: not rejecting a false null hypothesis

4. What happens if a result falls in the rejection region?

The null hypothesis is rejected.

5. When do you reject the null hypothesis based on the p-value?

When it is significant, the p-value is < 0.05 .

6. How do you determine the strength of a test?

By $1 - \beta$