

Type I and II errors

- ▶ This is called Type I error. The probability of Type I error is always equal to the level of significance that is used as the standard for rejecting the null hypothesis; it is designated by the lowercase Greek (α), and thus α also designates the level of significance.
- ▶ The most frequently used levels of significance in hypothesis testing are the 5 percent and 1 percent levels.

Type I and II errors

- ▶ A Type II error occurs if the null hypothesis is not rejected, and therefore accepted, when it is in fact false.
- ▶ There are two kinds of errors that can be made in significance testing: (1) a true null hypothesis can be incorrectly rejected and (2) a false null hypothesis can fail to be rejected.
- ▶ The former error is called a Type I error and the latter error is called a Type II error. These two types of errors are defined in the table below.