

**Psychology 225**  
**Practice #1**

1. Describe the purposes of both inferential statistics and descriptive statistics. Give an example (of your own, rather than one used in class) of when either type is likely to be useful.
2. How does random assignment help reduce the likelihood of confounds? Why are confounds a problem in research? What assumption do researchers make when they use random assignment?
3. How does random selection differ from random assignment, and how do these techniques relate to issues of internal and external validity?
4. Discuss the issue of construct validity in relation to operational definitions. Why is construct validity sometimes a problem and how do researchers deal with it?
5. Discuss the relationship between univariate, multivariate, and factorial designs with reference to independent variables, dependent variables, and levels. Give an example of a study (or suggest a study) which is univariate but not factorial. Next suggest how the study would change if the design was factorial univariate.
6. Define and give examples of the four measurement scales.
7. Can descriptive statistics concern both populations and samples? Why or why not?
8. Why can a random sample still have measurement error?