

Math 110 Final Exam Review

1. a. Experiment. Researcher is controlling the explanatory variable.
b. Treatment (A or B) $\rightarrow$ Categorical
c. Cholesterol level $\rightarrow$ Quantitative.
2. a. Observational. Patients aren't assigned to their group $\rightarrow$ the explanatory variable isn't being controlled or manipulated.
b. No $\rightarrow$ This is an observational study.
c. Activity (exercise/meditation).
d. Stress level.
3. a. Placebo group
b. Blinding is not mentioned, but the experiment should not tell members what kind of treatment they're getting to reduce the confounding introduced by the placebo effect.
c. Neither members nor practitioners should know who gets treatment/placebo.
d. A causal conclusion is valid, the experiment should be double blind to give the most reliable results.
4. a. All students @ city high.
b. Students surveyed.
c & d. Stratified.
e. Yes, all students have a chance of being selected.
f. Convenience Sample
g. Yes $\rightarrow$ selection bias. Seniors have a higher chance of being selected.
5. a. Random sample
b. Mt. SAC students
c. Yes. Random selection avoids selection bias.
d. Yes. The sample should be representative.
e. No! Mt SAC students don't represent all college students.