

GUTH

Math 110 Chapter 1 Review

1. a. Students @ her college.
- b. Students in each of her classes.
- c. Categorical
- d. The proportion of all students @ her college who feel the new policy is appropriate
- e. The same proportion - but from the sample = 85%.
- f. Convenience Sample $\rightarrow$ (listed under selection bias $\rightarrow$ see book index).
- g. Yes $\rightarrow$ selection bias.
- h. Observational $\rightarrow$
- i. No $\rightarrow$ the sample is biased $\frac{1}{2}$ therefore does not represent the population.

2. a. Observational
- b. diet soda drinking $\rightarrow$ categorical
- c. Change in weight $\rightarrow$ quantitative.
- d. diet soda drinkers may have weight gain issues (why else would they drink diet soda) $\rightarrow$ this is a possible confounding variable.
- e. No
- f. This isn't an experiment, but the group w/out soda is the closest we have to a control group.
- g. Not an experiment - but the soda drinkers are close.
- h. The groups are not similar (no random assignment) so cause/effect conclusions are not appropriate.
- i. No, this study is observational $\frac{1}{2}$ the sample was random so there is no reason to suspect bias.