Quiz 1

Taken on Tues Sept 23. You may work with a group of 3-4 students, submitting one sheet with all names, provided that you all contribute to the work. You may use your notes.

For questions 1-3, suppose that I want to investigate whether the color of paper on which an exam is printed has an effect on students’ exam scores.

1. Identify the observational units in this study.

2. Identify the explanatory variable in this study, and classify it as quantitative or categorical.

3. Identify the response variable in this study, and classify it as quantitative or categorical.

For questions 4-5, consider a study published in a 2007 issue of the journal *Preventive Medicine*, in which researchers found that smokers were more likely to have used candy cigarettes as children than non-smokers were.

4. Identify the explanatory and response variables in this study.

5. When hearing about this study, John responded: “But isn’t the smoking status of the person’s parents a confounding variable here?” When Karen asked what he meant, John said: “Children whose parents smoke are more likely to become smokers themselves when they become adults.” What else does John need to say in order to explain how the parents’ smoking status can be a confounding variable in this study?