

Answer each question completely but briefly. Edit to be as complete and concise as possible, in the fewest words possible (the standard scientific writing style is densely packed). Bullet lists, etc. are welcome. Also insert copy-pasted results from R, including table results and graphs.

Ten questions: 1 point per question + 1 point for: Σ [overall clarity of presentation, complete answers with evidence to back them, name on the submitted results, and a pdf as the submitted format].

1. It seems that every year we read a different version of the hazards of drinking coffee: some years, we read that it is bad for you, and some years, that it is good for you. Design a study in using all patients admitted to Orlando hospital admissions in 2020 to obtain a definitive answer to this persistent conundrum.
2. What are your proposed scientific hypotheses?
3. What are the strengths and weaknesses of your proposed study?
4. What type of study is best evaluated using ANOVA, and what kind of study is best evaluated with regression?

The following questions are based on the Social Security Administration's data base on baby names that we used in class.

5. What was the most popular **boy's** baby name in 1980?
6. What was the most popular **girl's** baby name in 2000?
7. It once seemed that a bunch of kids in class were named David. What year was there peak "Daveness" in the US?

"Millenials" are often defined as those born between ~1985 and ~2005; we'll use those years.

8. What are the top three most popular millennial girl's names?
9. Which state has the most millennial (insert most popular millennial girl's name), as a percentage of all girls in a state?
10. Ditto for the boys – Which state has the most of the top-ranked millennial boy's name, as a percentage of all boys per state?