

1. In a few sentences, describe any changes that you made to your experimental protocol from when you formulated it on Tuesday/Wednesday and when you executed it on Thursday/Friday in a few sentences. If you didn't change anything, write *We did not change anything*.

2. Take the completed table from last week's worksheet, translate it into a data frame, and load it into RStudio. Write the code that you used to do this below. Does the data frame that you loaded into R differ at all from the one that you sketched into your experimental protocol? If so, how? Answer in one to two sentences.

3. Use `ggplot2` to create a visualization like the ones you sketched in the **Exploratory Data Analysis** section of the previous handout.
 - Write your code and sketch your result below.
 - Does your visualization support of your claim, oppose it, or something in between? Answer and explain in one to two sentences.

4. Now consider the *order in which the data was collected* as a numeric covariate. This variable would take the value 1 for the first trial of your experiment, 2 for the second, and so on. Use `infer` to conduct a hypothesis test to check whether run order is associated with your experimental groups. Write the `infer` pipeline you used below, and interpret the results (make a conclusion) in one to two sentences.

5. Now, use `infer` to test your claim about bubble water and the intervention of your choice. In the space below, write down:

- The null and alternative hypotheses.
- The value of the observed test statistic.
- A visualization of the null distribution and observed test statistic with the p-value shaded in.
- The p-value and your conclusion (based on the α -value you selected in the last worksheet) regarding the null hypothesis and the original claim.

6. A thought experiment: *if you did not* find a significant effect, speculate as to what you could change about your protocol to *increase* the chance that you find an effect. *If you did*, speculate as to what you would change about your protocol if you wanted to *decrease* the chance that you'd find an effect.