1. Consider the following data visualization found at WTF Visualizations [https://viz.wtf/](https://viz.wtf/).

Participants were asked to report their gender and respond to the question “How much do you worry about your hair when it is raining?”

(a) What do you think this visualization is trying to communicate? Is it effective?
(b) Here is another visual representation of the same data:

Do you think this is an improved visual representation? Discuss the strengths and weaknesses of the two plots.
(c) Do you notice any irregularities with this data?
2. (a) Go to website \[https://ourworldindata.org/grapher/life-expectation-at-birth-by-sex\] and verify the values in the Wainer chart for the countries: France, United States, United Kingdom, Sweden (you can select a year between 1970-1975 depending on available data).

(b) Find the values for the most recent year for these same countries and recreate the visualization.

(c) What, if any, changes do you observe?

3. Find your own WTF visualization. Consider the following bad practices we discussed in class:

- Failing to follow the principle of proportional ink
- Ignoring the visual metaphor
- Graphing the data out of context
- Change scale mid-axis
- Ignoring the important message by emphasizing the trivial
- Changing the baseline, or the axes
- Using too many dimensions

Choose two of the practices listed above and find a corresponding example at \[https://viz.wtf/\] (or another website of your choice) that uses the poor practice. For your two choices include a copy of the visualization and a short explanation of why you chose this particular visualization to demonstrate the poor practice.