1. Why should we never map raw counts?
   1. Because the spatial units vary in size
2. In what situation can we map raw counts
   1. Hexmaps or where the spatial units are the exact same size
3. What are the first step(s) of doing analysis
   1. Look at your data it might be hiding a monkey (see week 1 lecture)
   2. Check NA values
   3. List the datasets you have and their format (e.g. csv)
   4. Think how they can be joined or mutated
   5. Set out what the end map or product is, then work out how to get there
   6. Make sure the datasets have the same CRS
4. What is the function to make an simple feature points from csv data with latitude and longitude
   1. st\_as\_sf(data, coords = c("x", "y"), crs = 28992)
   2. where x and y are columns from the csv.
5. How do you join two spatial datasets?
   1. Using spatial join
   2. In R this is st\_join() and the argument defaults to st\_intersects (more on that next week)
6. Explain how st\_join() works if you wanted to join points to a London borough dataset?
   1. It takes the London borough dataset and for each point within a borough makes an extra row with the borough data and then also the point data
   2. It makes a very long dataset
7. Explain how tmap works ?
   1. You give it an sf feature (e.g. Boroughs)
   2. Then select the column you want to map (e.g. count of airbnbs)
   3. Then provide extra detail (e.g. legend)
8. What is an inset map
   1. Small map that shows where you study area is
   2. For example, London in the UK
9. If you are given point data, what is the most likely CRS if it isn’t set and how can you check ?
   1. WGS84
   2. EPSG 4362
   3. Use something that you know is correct to compare them
10. What happens if you try to join data in different CRSs?
    1. They will likely join as the data still exists (and plots) but will give you the wrong answer as the datasets will be in the wrong plac