

Use R to answer the following questions:

(Note, the datasets may be accessed directly within the console using their names)

- 1.) Open the `ChickWeight` dataset, what is the average weight of a chick after 21 days? How many chicks weigh more than this average? How many chicks are on each diet?
- 2.) Convert the `Titanic` dataset to a dataframe. What percentage of the crew survived? How many of these were female? Based on the entire dataset, if you could choose to be a particular type of passenger on the Titanic, which would it be? Explain your reasoning.
- 3.) Open the `iris` dataset, What is the average of the ratio of `Sepal.Length` to `Petal.Length` for the `virginica` species? Store the average values of each column in a **named** vector.
- 4.) Open the `mtcars` dataset. What are the names of the cars that have a `mpg` greater than the average value and a `wt` above 2000 lbs. What are the names of the cars with manual transmission?
- 5.) Open the `occupationalStatus` dataset. What is the most likely occupational status shared by fathers and sons?
- 6.) Open the `ggplot2::mpg` dataset. What is the difference between the average values of the numeric columns for the years 1999 and 2008?
- 7.) Open the `lubridate::lakers` dataset. What percentage of the rows have NA values in columns 1.) `x`, 2.) `y` 3.) both? (You need to have the package `lubridate` installed for this question)
- 8.) Open the `nycflights13::flights` dataset. What are the 1.) average, 2.) maximum and 3.) minimum arrival and departure delays for each month? (You need to have the package `nycflights13` installed for this question)