Mini Math
Week 3

For this challenge you will be working SOLO. You will be using the Pokémon dataset. For each question use the tidyverse and ggplot2 packages.

1. Visualize and describe the distribution for grass Pokémon weights. Be sure to describe in full detail (SOCS), and describe any unusual points.
2. First filter the dataset for Water Pokemon with attack scores less than 50, and weights less than 50 kg. Next create a pairwise boxplot of pokémon attacks accross each generation.
3. Filter the dataset to select only humongous pokémon (greater than 300 kg). Create a scatter plot of attack against attack. Color the points based on whether or not a pokémon is legendary or not. Size the points based on the pokémon weights.
4. Create a barplot for pokémon types.
5. Summarize the average pokémon attack by type.
6. Select the names of pokémon with the top 50 attacks.
7. Select the names of pokémon with the bottom 50 defences.

Solution:

```
  ## Load Packages
library(ggplot2)
library(tidyverse)

## Load Dataset
pok <- read.csv('/data/datasets/pokemon.csv')

## Question 1
pok %>% filter(type1=='grass') %>% ggplot(aes(x=weight_kg)) + geom_histogram(fill
    ='green', col='black') +
  theme_classic() +
  labs(x='Weight in Kilogams', y='Frequency', title='Grass Pokemon Weights')

## Question 2
pok %>% filter(attack>50) %>% filter(type1=='water') %>%
  filter(weight_kg<50) %>% ggplot(aes(y=attack, fill=factor(generation))) + geom_
    boxplot()

## Qustion 3
pok %>% filter(weight_kg>300) %>% ggplot(aes(x=attack, y=defense, size=weight_kg,
     col=factor(is_legendary)))+
  geom_point(alpha=0.5)

## Question 4
pok %>% ggplot(aes(x=type1)) + geom_bar()

## Question 5
pok %>% group_by(type1) %>% summarise(mean(attack))

```