My answers

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# Write your answer here

#### Summary Statistics

1. Consider the mtcars dataset. Compare the average miles per gallon between 4 and 8 cylinders.

See the description of the dataset and find how to extract each variable.

?mtcars mean(mtcarsmpg[mtcarsmpg[mtcars$cyl == 8])

cyl4 <- mtcars[ which(mtcars$cyl==4), ] cyl4\_mean <- mean(cyl4[,1])

cyl8 <- mtcars[ which(mtcars$cyl==8), ] cyl8\_mean <- mean(cyl8[,1])

cat(“cyl4\_mean”,cyl4\_mean) cat(“cyl8\_mean”,cyl8\_mean) c(cyl4\_mean,cyl8\_mean)

# Write your answer here

1. Compare the summary statistics between the different transmissions.

# Write your answer here

summary(mtcars[mtcarsam == 1, ])

summary(mtcars[which(mtcarsam ==1),])

1. For the miles per gallon and weights, which one has more variation?

# Write your answer here

var\_mpg <- var(mtcarswt)

cat(“variation of mpg:”,var\_mpg,” variation of weight:“,var\_wt) cat(ifelse(var\_mpg > var\_wt,”mpg”,“weight”),” has more variation”)

if(var\_mpg > var\_wt){ cat(“mpg has more variation”) }else{ cat(“weight has more variation”) }

#### Plots

1. Make the barplot for the number of cars with different transmissions.

# Write your answer here

barplot(table(mtcars$am))

table(mtcars$am)

1. What is the best way to see the distribution of cars by number of cylinders?

# Write your answer here

hist(mtcars$cyl)

1. Find the summary statistics for weights and see if they agree with the information obtained from the boxplot.

# Write your answer here

summary(mtcarswt) print(“agree”)

#### Further practice

You can practice more with built-in datasets in R. To find other datasets, type data() in the console to see more available datasets for you to try.