

Use the mtcars dataset in R to answer these questions.

Which of the following properly describes the mtcars data set?

- ☐ It is a data set about the Model T cars built in 1908.
- ☒ It contains data from the 1974 Motor Trend US magazine.
- ☐ It describes the separate trends of Mustang and Truck car sales during the years 1961-1968.
- ☐ It shows the percentages of vehicles in the 1980's that were Made in Taiwan.

How many variables are in the mtcars data set?

How many observations are in the mtcars data set? (Hint: try View(...))

How many vehicles are represented in the dataset for 4, 6, and 8 cylinder vehicles? (Hint: use the table(...) function.)

Cylinders	Number of Vehicles in the Dataset
4	11
6	7
8	14

According to the mtcars data, on average, vehicles with 4 cylinders get the best (highest) gas mileage. What is the average mpg for automatic and manual transmission vehicles with 4 cylinders? (Round answers to the nearest tenth.)

Transmission	Mean Gas Mileage for 4 Cylinder mtcars Vehicles (mpg)
Automatic	22.900
Manual	28.075

According to the mtcars data, on average, vehicles with 8 cylinders have the best (fastest) quarter mile time. What is the mean quarter mile time (qsec) for automatic and manual transmission vehicles with 8 cylinders? (Round answers to nearest tenth.)

Transmission	Mean Quarter Mile Time for 8 Cylinder mtcars Vehicles (sec)
Automatic	17.14
Manual	14.55

According to the mtcars data, how many thousands of pounds does the heaviest 6 cylinder car with an automatic transmission weigh? (Round to the nearest tenth.)

How many more thousands of pounds does it weigh than the heaviest 6 cylinder car with a manual transmission? (Round to the nearest tenth.)