

## Investigative Questions

1. For each year, find the continent whose models for that year had the highest average gas mileage. Report the year, the continent, the number of models produced that year, the highest average gas mileage and the avg acceleration of the models. Present the output in chronological order of year. In case of ties between continents for a given year, report all the tied continents and their assorted metrics.
2. For each year, find the model that had the highest power-to-weight ratio. Report the year, make description, number of cylinders, horsepower, weight, and power-to-weight ratio. In case of ties between models for a given year, report all the tied models and their assorted metrics.
3. Every year has some combination of cars with 3, 4, 5, 6 and 8 cylinders. For each year, determine which cars have the highest and lowest number of cylinders. Of these two groups, find the most fuel-efficient high cylinder vehicles (denoted type A) and least fuel-efficient low cylinder vehicles (denoted type B). There may be multiple vehicles of either type in the event of MPG ties. For every year, report every pairing of type A and type B cars. More explicitly, for a given pairing, with the type A car denoted as Car A, and the type B car as Car B, report the following columns in a row:
  - a. year
  - b. make description of Car A
  - c. engine displacement of Car A
  - d. fuel efficiency of Car A
  - e. cylinder count of Car A
  - f. make description of Car B
  - g. engine displacement of Car B
  - h. fuel efficiency of Car B
  - i. cylinder count of Car B
  - j. difference in MPG between Car B and Car A (i.e. column h - column d)
  - k. difference in engine displacement between Car B and Car A (i.e. column g - column c)