

## Exer 2.4

Here is a small data frame about automobiles.

Make and model	Vehicle type	Trans. type	# of cyl.	City MPG	Hwy MPG
Kia Optima	compact	Man.	4	21	31
Kia Optima	compact	Auto.	6	20	28
Saab 9-7X AWD	SUV	Auto.	6	14	20
Saab 9-7X AWD	SUV	Auto.	8	12	16
Ford Focus	compact	Man.	4	24	35
Ford Focus	compact	Auto.	4	24	33
Ford F150 2WD	pickup	Auto.	8	13	17

(a) What are the cases in the data frame?

- A Individual car companies
- B Individual types of cars
- C Individual configurations of cars
- D Different sizes of cars

Exer 2.4-1

(b) For each case, what variables are given? Are they categorical or quantitative?

- Kia Optima: not.a.variable categorical quantitative Exer 2.4-2
- City MPG: not.a.variable categorical quantitative Exer 2.4-3
- Vehicle type: not.a.variable categorical quantitative Exer 2.4-4
- SUV: not.a.variable categorical quantitative Exer 2.4-5
- Trans. type: not.a.variable categorical quantitative Exer 2.4-6
- # of cyl.: not.a.variable categorical quantitative Exer 2.4-7

(c) Why are some cars listed twice? Is this a mistake in the table?

- A Yes, it's a mistake.
- B A car brand might be listed more than once, but the cases have different attributes on other variables.
- C Some cars are more in demand than others.

Exer 2.4-8