You work for *Motor Trend*, a magazine about the automobile industry. Looking at a data set of a collection of cars (mtcars), they are interested in exploring the relationship between a set of variables and miles per gallon (MPG) (outcome). They are particularly interested in the following two questions:

- 1. "Is an automatic or manual transmission better for MPG"
- 2. "Quantify the MPG difference between automatic and manual transmissions"