Methods I Homework #2 **DUE 12 Sep**

Instructions: Answer each question completely and concisely. Bullet lists, graphs, etc. are welcome. Provide results from R, including table results and graphs, and include your code either with your answer per problem or as an appendix at the end. Include your name in your submitted pdf's file name.

Questions 1-3 are about using *dplyr.* You will use the Cars 93 data set in the MASS package.
Preliminary steps:

a) Get the data set: If MASS is already installed, then simply load it.
b) Because it comes in the MASS package, load Cars93 differently than if when we import a file:

```
data(Cars93)
attach(Cars93)
View(Cars93)
```

Now you should be ready for the questions:

1. Calculate the mean Weight of cars per Manufacturer in 1993. Which Manufacturer had the heaviest cars, on average? Which one had the lightest, on average? Show your results to back up your claim. **[4 pts]**

2. How many distinct Models exist in this data set? **[2 pts]**

3. A heavier car (i.e., greater Weight) should be bigger and have a larger turning radius (Turn.circle). Is this generally true? Back up your clearly-written answer with a graph that shows the overall pattern. **[2 pts]**

4. Do cars that hold more passengers also tend to have more luggage room? **[2 pts]**