

# Exam 01 Review

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# Announcements

- HW 04 due Thursday at 11:59p
- Thursday's Lab: Exam help hours



# Exam I Outline

- Short answer questions
- Permitted to bring one sheet of handwritten notes (front and back)
  - Must turn in notes with exam
  - You will not be permitted to use your notes if they are not handwritten
- Calculator **not** permitted on exam
- Please use pencil!!

# Topics

- Regression Basics
  - Interpreting coefficients
  - Inference for regression
  - Predicted values and the appropriate interval
  - Regression assumptions
- ANOVA to compare group means
- ANOVA for regression

# Topics

- Transformations on the predictor or response variables
  - Determining if transformation is required
  - Interpreting coefficients on transformed and original scales
  - Calculating predicted values on transformed and original scales
- $R^2$  versus Adjusted  $R^2$
- Special predictors: indicator variables and interaction terms

# Topics

- Interaction terms
- Nested F Test
- High leverage, outliers, and influential points
  - Basic ideas - no calculations
- Multicollinearity
  - Basic ideas - no calculations



# Questions?

# Practice

# Cars analysis

- Sit with your lab group.
- Copy the **Exam 01 Review** project on RStudio Cloud to type your responses in the R Markdown file.
- You can also find the application exercise on the course schedule.