

# Exam 01 Review

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# Announcements

- HW 03 due TODAY at 11:59p
- Lab 06 - Spatial regression due Tuesday at 11:59p
- Sign Up for DataFest!

 April 3 - 5

 Penn Pavilion

 [stat.duke.edu/datafest](https://stat.duke.edu/datafest)

# Exam I Outline

- Multiple choice, true/false, short answer questions
- Permitted to bring one sheet of handwritten notes (front and back)
  - Must show your notes to me or TA when you turn in exam.
  - Points deducted if notes are not handwritten
- Calculator **not** permitted on exam
- Please use blue or black ink pen and write carefully!

# Topics

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

# Topics

- Indicator variables and interaction terms
- Transformations on response variable
  - Determining if transformation is required
  - Interpreting coefficients on log-transformed and original scales
  - Calculating predicted values on log-transformed and original scales

# Questions?

# Practice



# Diamonds analysis

- Sit with your lab group.
- Write your responses to each question.
- You can download the .Rmd file [here](#) and open it in RStudio if you wish to type your responses directly in the R Markdown file.
- We will spend a few minutes on each section, then select a few groups to share their responses.

## Part I: Analysis of Variance

10 : 00

## Part II: Original Model

10:00

### Part III: Model with Log-Transformed Response

10:00