**Final Exam STA 570**

**Video Portion**

**25 points**

Please present the solutions to these problems in a video. You may choose to present them

* As a voice-over Power Point (or using another slide program)
* With a video of yourself speaking and using slides, a whiteboard, etc. You can use your phone, tablet, or computer webcam to record yourself.

You can either upload your video (.mp4 format or something that can easily be opened) to YouTube and attach the link to the assignment OR you attach the video as a submission. If you upload to YouTube, make sure you save it as unlisted or public (NOT private).

You will be graded on the following:

* (16 points) Your correct solution
* (5 points) The multimedia presentation is
  + clear and concise, with a very logical progression of ideas.
  + Includes ALL assignment requirements.
* (4 points) Multimedia element is
  + it is easy to hear/understand
  + The video is clear and any use of helps (board, paper, slides, etc.) are easy to read.

**Exam Problems**

1. Suppose that you select a random sample of people and ask for their political viewpoint and whether or not they support a particular policy proposal. Suppose that 60% of liberals support the proposal, compared to 35% of moderates and 25% of conservatives. For which sample size will this result provide stronger evidence that the three political groups do not have the same population proportions who support the proposal? Be sure to explain your reasoning. No calculations are necessary.

Options:

* 1. Sample size of 200 for each group;
  2. Sample size of 20 for each group;
  3. The strength of evidence will be the same for both of these sample sizes.

1. Suppose that you select a random sample of 25 UK students majoring in Nutrition, 25 majoring in Spanish, and 50 majoring in Marketing. You ask them to report how many hours they study in a typical week. You calculate the average responses to be 18.6 hours in Nutrition, 15.3 hours in Spanish, and 19.8 hours in Marketing. For which standard deviation will this result provide stronger evidence that the three majors do not have the same population mean study time? Be sure to explain your reasoning. No calculations are necessary.

Options:

* 1. Standard deviation of 4.0 hours in each group;
  2. Standard deviation of 8.0 hours in each group;
  3. The strength of evidence will be the same for both of these standard deviations.]