ECO 230: Business Communication and Research
Instructor: Dr. James Murray
Fall 2018   Name (10 points): _____
Practice Exam 1

1. (20 points) Define the four scales of measurements.

2. Suppose a restaurant survey asked the following survey question, "What was the overall quality of your experience?" with choices (5) Excellent, (4) Very Good, (3) Good, (2) Poor, (1) Very Poor

   (a) (5 points) What is this scale of measurement?

   (b) (5 points) Is it possible and appropriate to compute a mean from data drawn from this survey question? If so, describe how. If not, describe why not.

   (c) (5 points) Is it possible and appropriate to compute a median from data drawn from this survey question? If so, describe how. If not, describe why not.

   (d) (5 points) Is it possible and appropriate to compute a mode from data drawn from this survey question? If so, describe how. If not, describe why not.
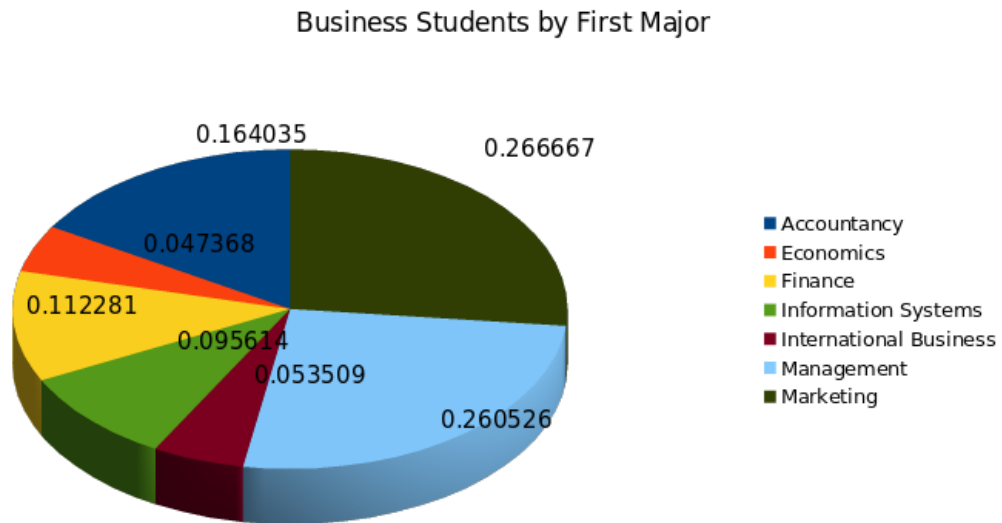
3. Walter Hickey once said, "Pie charts are the Nickelback of data visualizations." In the following questions, analyze the meaning of this statement in the context of the data visualization below.

Source: @WaltHickey Twitter post, June 14, 2013
https://twitter.com/WaltHickey/status/345646754089291777

Business Students by First Major

(a) (20 points) Describe four problems with the visualization above, and for each problem suggest a different chart type or different data visualization decision to mitigate the problem.

(b) (10 points) Sketch your own chart in the space below with a pen or pencil that more effectively communicates the same information given in the pie chart above.

4. (20 points) Identify four problems with the data visualization below. For each problem suggest a different chart type or different data visualization decision to mitigate the problem.

Sum of Interactions

Total Interactions by Day of the Week

Weekday