Midterm II: Some problems for review

The exam will be taken in class (SCB 304) on Friday 11/1. You will bring your own laptop and pocket calculator (of any kind). You are not allowed to use any app on your laptop, even a calculator app. Your web browser should occupy the full screen at all time. Phones and notecard are not allowed. The instructor will provide scratched papers for you. When you are seated, go to Canvas and click on Midterm II in Week 9 module. You will be directed to MyLab Math, which will ask you for an access code. The instructor will give you the access code.

The textbook sections to be covered are 1A-1D, 5A-5E, 6A. You should review the homework problems, worksheets, quizzes, examples given in the lectures. It is always a good idea to study for the exam with someone. Some problems to practice:

1) Give an example of the Appeal-to-Popularity fallacy.

2) Give an example of the False-Cause fallacy.

3) Give an example of the Appeal-to-Ignorance fallacy.

4) Give an example of the Hasty-Generalization fallacy.

5) Give an example of the Limited-Choice fallacy.

6) Give an example of the Appeal-to-Emotion fallacy.

7) Give an example of the Personal-Attack fallacy.

8) Give an example of the Circular-Reasoning fallacy.

9) Give an example of the Diversion fallacy.

10) Give an example of the Straw-Man fallacy.

11) Make a truth table for two following propositions and determine whether they are logically equivalent. (p and q) or r p and (q or r)

12) Give an example of inductive reasoning.

13) Give an example of deductive reasoning that is sound.

14) Give an example of deductive reasoning that is valid but not sound.

15) Give an example of deductive reasoning that is invalid.

16) The histogram of a data set is given below.



(a) Construct a frequency table. Don't include the relative frequencies or cumulative frequencies.

(b) Find the mean, median, and mode of the data set.

17) Identify the sampling methods (simple random sampling, systematic sampling, convenience sampling, cluster sampling, stratified sampling).

(a) An IRS auditor randomly selects for audits 30 taxpayers in each of the filing status categories: single, head of household, married filing jointly, and married filing separately.

(b) People magazine chooses its "25 most beautiful women" by looking at responses from readers who voluntarily mail in a survey printed in the magazine.

(c) A study of the use of antidepressants selects 50 participants between the ages of 20 and 29, 50 participants between the ages of 30 and 39, and 50 participants between the ages of 40 and 49.

(d) Every 100th computer chip that is produced is given a reliability test.

(e) A computer randomly selects 400 names from a list of all registered voters. Those selected are surveyed to predict who will win the election for mayor.

(f) A taste test for chips and salsa is conducted at the entrance to a supermarket.