

## Examination 1 Study Guide

**About the exam:** As stated on the syllabus, examination 1 will account for 15% of your final course grade. The test will be out of 100 points. The following are of note:

1. The exam is comprised of 5 questions, some of which are multi part problems (parts a, b, so on)
2. The 100 points will be evenly distributed over the exam. Each question will be worth 20 points.
3. You are allowed to make one (1) 3X5 index card with notes for the examination. **YOU MUST SUBMIT THE NOTE CARD BY THE FRIDAY BEFORE THE TEST.**

**Covered Material:** This test will cover the following sections. **READ THESE SECTIONS!**

- **Section 1A:** Fallacies
- **Section 1B:** Logical operators, truth tables, propositions, sets (including set of numbers)
- **Section 1C:** Making and reading Venn diagrams
- **Section 1D:** Induction in Mathematics, Inductive and deductive arguments, Analyzing deductive arguments logically. (Soundness, Validity, using Venn diagrams to analyze deductive arguments.)
- **Section 2A:** Unit conversions
- **Section 2B:** Unit conversions, the Metric System, US Customary system
- **Fraction manipulation (adding, dividing, subtracting, multiplying, simplifying), powers of ten.** You may be asked to convert among decimals, percents, and/or fractions.

**Study Guide:** The following may be of help to you in preparing for the test. Please look over your homework, quizzes, book, and class notes to prepare.

- One question on the test will involve classification of numbers. Look over your quizzes and be sure you know the different sets of numbers. See section 1B and your class notes for the different sets of numbers.
- One question will deal with logical operators, truth values, truth tables, and/or the conditional and its four forms.
- One question will deal with unit conversions. Be ready for a word problem! Know the signal words! Sections 2A and 2B explain these. One question will deal with Venn diagrams. This might include creating a two set Venn diagram from a chart or word problem, filling in numbers on the diagram, answering questions about different regions of the diagram, and analyzing arguments using a Venn diagram. Sections 1C and 1D have the requisite information.
- The final question is at my discretion and will come from one of the covered sections above.

### Review Problems:

For exam policies and review problems, visit the course web site listed below.