1. (20 points) If necessary, put the following statements in the form ‘If p, then q’. Is it an Inductive or Deductive argument? If Deductive, then draw the Venn-diagram and check the Validity of the argument. Also, check if it is Sound.

**Premise:** It’s necessary for nurses to know CPR.

**Premise:** Tom is a nurse.

**Conclusion:** Tom knows CPR.

2. (20 points) Operating at full capacity a Nuclear Power Plant can generate 1190 megawatts of power. Nuclear fission of 1 kilogram of uranium releases 16 million kilowatt-hours of energy. How much energy, in kilowatt-hours, can the plant generate each month? [Hint: Your answer should be in ‘Scientific Notation’]? How much uranium, in kilograms, is needed by this power plant each month? If a typical home uses 1000 kilowatt-hours of energy per month, how many homes can this power plant supply with energy each month?
3. (20 points) Jordan and Amari run a 200 meter race, and Jordan wins by 10 meters. They decided to run the 200 meter race again with Jordan 10 meters behind the starting line.

(a). Assume both runners run at the same pace as they did in the first race, who wins the second race?
(b). Suppose that Jordan starts 5 meters behind the starting line in the second race. Who wins the race?.

4. (20 points) Eileen has earned $45 in annual interest from a saving account with a 3.5% annual interest rate. Assuming she made no deposits or withdrawals during the year, what is the balance in her account now after she earned this $45 interest?
5. (20 points) Suppose you are a teacher. Your first-period class, with 25 students, had an average score of 86% on the midterm exam. Your second-period class, with 30 students, had an average score of 84% on the same exam. Does it follow that the average score for both classes combined is 85%? Explain.