Howard University Math Department

Instructions:

PLEASE PROVIDE STEP BY STEP EXPLANATIONS

WRITING ONLY ANSWERS WILL NOT GET FULL CREDIT

Time Limit 30 minutes

Please read the questions carefully before answering

1. (10 points) A country has 15 million homes and totally uses 3 Gigawatts at a given time (One GigaWatt = Million Kilowatts). Write both numbers in scientific notation. Then divide those numbers and find out how many Kilowatts the average home used.

2. (10 points) True or False ? Explain why.
   1. The only cause of Climate change is driving gas powered cars.
   2. Climate change means winters will get warmer every year.

3. (10 points) In a lottery 500 tickets are sold for 3 dollars each. There is first prize of 500 dollars, 3 second prizes of 100 dollars, and 5 third prizes of 40 dollars. What is the average winning ? How much profit do the lottery organizers make? What is the probability of not winning anything? Write the probability as a percentage.