

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) Here are the points scored by the South Carolina women's basketball team (Gamecocks) in the NCAA tournament:

103, 101, 94, 78, 62, 51.

Find the median, mode, and average. You must show your work and explain steps.

2. (Extra credit 5 points) What percentile rank does 51 points have among all the scores? You must show your work and explain steps.
3. (10 points) For the same six values (points scored by Gamecocks) find the standard deviation. You must show your work and explain steps.

4. (10 points) For the following problem use these facts about data in normal distribution:
68.2 percent lie within one standard deviation of the average ; 95.4 percent within two standard deviations ; 99.7 percent within three standard deviations.
In a group of 1000 people, suppose the number of pizzas they eat in a year follows the normal distribution, with an average of 42 and standard deviation of 5. How many people eat between 32 and 52 pizzas in a year?