

Statistics Chapter Review

- 1) Below are the scores for a recent test in a Statistics class of 26 students.

90 90 95 100 80 80 75 80 70 60 95 100 100 100 75 80 90 90 90 70 70 80 85 90 90 85

Find the following and answer the questions.

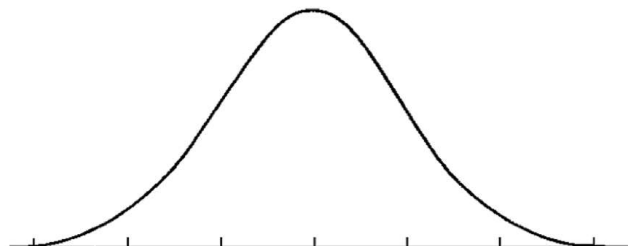
Median = _____ Mean = _____ Mode = _____

Standard Deviation = _____ Variance = _____

How many scores are within 1 standard deviation of the mean? _____

How many scores are within 2 standard deviations of the mean? _____

Hint: Drawing the curve will help answer the last two questions!!!



- 2) 500 freshmen at Schaumburg High School took an algebra test. The scores were distributed normally with a mean of 75 and a standard deviation of 7. Label the mean and three standard deviations from the mean. Answer the following questions based on the data:

- What percentage of scores are between scores 61 and 82?
- What percentage of scores are between scores 75 and 82?
- What percentage of scores are between scores 61 and 89?
- What percentage of scores is less than a score of 61?
- What percentage of scores is greater than a score of 96?
- Approximately how many algebra students scored between 61 and 89?
- Approximately how many algebra students scored between 68 and 82?
- Approximately how many algebra students scored between 61 and 75?
- Approximately how many algebra students scored between 89 and 96?
- Approximately how many algebra students scored higher than 89?



- 3) Determine whether each situation describes a survey, an experiment or an observational study. Explain.
- A group of high school students is randomly selected and asked to complete a form regarding lunch rules.
 - An advertising company wants to test a new logo design. They randomly select 20 participants and watch them discuss the logo.
 - The research department of a retail company plans to conduct a study to determine whether a dye used on a new T-shirt will begin fading before 50 washes.