EDU 7211 – Dr. Mitchell

Homework Assignment #1
The data for this problem come from a large study of school trust in a Midwestern state in which a sample of school principals from elementary, middle, and secondary schools received trust ratings from randomly selected students in their schools. Students responded to written questions such as "The principal of my school is fair"; "…is smart"; "…tells the trust to students", etc. There were 12 items rated on a 4-point scale ranging from Always to Never. The highest possible rating was 48 and the lowest possible rating was 12. The ratings of students within a school were averaged to provide each principal's trust rating. Higher ratings (or scores) indicate higher levels of trust for that principal. The results presented here are for principals—that is, the frequency distribution is the distribution of the principals' ratings, not the individual students' responses. Variance refers to variability among principals, not among students, etc.
Included with this problem is a computer printout of frequency distributions, summary statistics (central tendency, variability), and some histograms for these data. The results are presented separately by grade level. Use the printout to answer the questions that follow.
Type your answers to the questions that follow and present them in as professional and polished manner as you can

****

1. Describe the shape of the distribution of the trust ratings for the middle school principals. Explain your answer.
2. Now consider the central tendency of the scores for the three grade levels.
    a. For each of the three groups compare the three measures of central tendency. That is looking at elementary principals, are the mean, median, and modal trust ratings the same? Repeat for middle and high school principals.
    b. What do you think would be the best way to report "average" considering what you found in part a?
    c. How do principals' trust ratings compare among the three levels?
3. Now look at the measures of dispersion (variability) for each of the three grade levels.
    a. How does variability of the ratings change with grade level? Do elementary school principals differ more or less from each other than middle or high school principals?
    b. Demonstrate the relationship between standard deviation and variance for

    the elementary school principals.
4. Write a summary of your findings. What do these results suggest about trust of principal by students?