Homework 2: Descriptive Statistics and Variability

1. Calculate the sums of squares for the following set of data: 4, 6, 7, 8, 10.
2. The numbers that follow represent the total number of hours of sleep that I received each night for the first week of the semester: 6, 7, 7, 6, 7, 4.5, 8.  Find, the mean, median, mode, variance and standard deviation for these data.  Show your work.
3. Let’s say that the second week of the semester, the mean number of hours that I slept was exactly the same as it was for the first week, BUT, the variance was twice as large. For which week (first or second) would I be more likely to have gotten an unusually small (or large) amount of sleep? Explain your answer.
4. Oddly, I wound up getting 12 hours of sleep one night during the third week of the semester. Which MCT would likely be most affected by that single anomalous datapoint?