Problem Set

1. Based on Ken's population database, compare the amount of sleep that sixth-grade females get on average to the amount of sleep that eleventh-grade females get on average.

   Find the data for 15 sixth-grade females based on the following random ID numbers:
   65 1 67 101 106 87 85 95 120 4 64 74 102 31 128

   Find the data for 15 eleventh-grade females based on the following random ID numbers:
   348 313 297 351 294 343 275 354 311 328 274 305 288 267 301

2. On the same scale, draw dot plots for the two sample data sets.

3. Looking at the dot plots, list some observations comparing the number of hours per week that sixth graders spend on doing homework and the number of hours per week that eleventh graders spend on doing homework.

4. Calculate the mean and MAD for each of the data sets. How many MADs separate the two sample means? (Use the larger MAD to make this calculation if the sample MADs are not the same.)

	Mean (hours)	MAD (hours)
Sixth-Grade Females		
Eleventh-Grade Females		

5. Recall that if the number of MADs in the difference of two sample means is greater than or equal to 2, then it would be reasonable to think that the population means are different. Using this guideline, what can you say about the average number of hours of sleep per night for all sixth-grade females in the population compared to all eleventh-grade females in the population?