

Day 3

1. In order to decide if the local high school needs a bigger parking lot, the district's planning manager gathered the data shown in the chart below.

Cars in the parking lot at 11 a.m.

	M	T	W	T	F
Week 1	150	167	181	156	168
Week 2	135	146	142	166	163
Week 3	155	139	148	156	127
Week 4	158	157	163	138	141

- Make a frequency distribution table of the number of cars in the parking lot using 7 intervals from 120 to 190. Draw a histogram for the data in the frequency distribution.
 - Describe the center and spread of the distribution.
 - If the current lot has 200 spaces, do you think the high school needs a bigger lot? Why or why not?
2. The number of hits made for the season by the regular players on a little league team are: 31, 15, 22, 18, 12, 34, 26, 28, 19, 26, 17, 29, 26, 22, 31
- Find the mean and median of the data
 - Find the range and IQR of the data
 - Draw a box plot of the data
 - Are there any outliers using the 1.5 IQR rule?
 - A player from another team, who made 28 hits this season, claims that he made more hits than 75% of the team's players. Do you agree? Explain your reasoning.
3. The average life span of some animals commonly found in a zoo are: 1, 7, 7, 10, 12, 12, 15, 15, 18, 20, 20, 20, 25, 40, 100.
- Make a histogram of the data using intervals of 10 years.
 - Describe the center and spread of the distribution.
 - Do any of the life expectancies appear to be outliers? Explain your reasoning.
 - Use the 1.5 IQR rule to confirm that 40 and 100 years are outliers.
 - Make a box plot of the distribution. Clearly identify the outliers.
4. Without using a calculator, find the mean and sample standard deviation of 0, 2, 4, 6, 8. Explain what each number tells you.