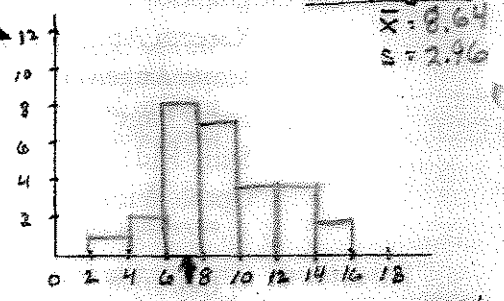


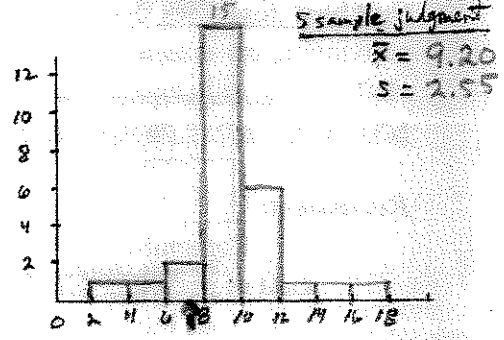
(change your window to match)

A39

- 1) Create a histogram of the three data sets (initial judgment, 5 sample judgment, and 5 random sample), describe the distribution, and calculate the mean and standard deviation.
- 2) How do the means and standard deviations of the data sets compare? (Describe in detail)



- 3) Which method do you think is doing a better job of determining the true average size of the rectangles? (Explain in detail)

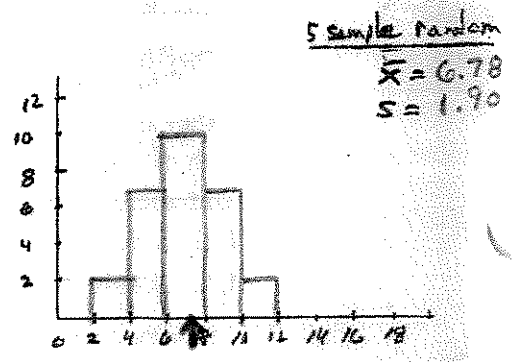


Period 1

Initial Judge	5 Samp. Judge	5 Samp. Rand.	10 Samp. Rand.
10	10	4.6	
10	9	9	
5	4.4	3.8	
15	12.8	5.4	
3	6	4.4	
7	10	10.4	
6	8.4	6.2	
10	10.2	7	
10	11.2	6	
9	11	4.6	
12	8.2	4.4	
12	9.6	7.6	
7.33	9.0	8.0	
8	8.4	6.2	
12	7.4	8.2	
12	14	7	
15	16.6	7.6	
7	8	10.2	
4	9.4	6.4	
6	3.8	5	
9	9.2	9.2	
6.8	8	8	
8	8.6	9	
8	8	7.6	
9	9	8.4	
8	8.2	6.4	
6.6	9	3.8	
6.3	10.2	5.4	

Day 40 (except #7)
 4) Label the true average area of the rectangles 7.42 on each of the histograms. Do any of the plots have a center that is very close to the true average? yes Which?

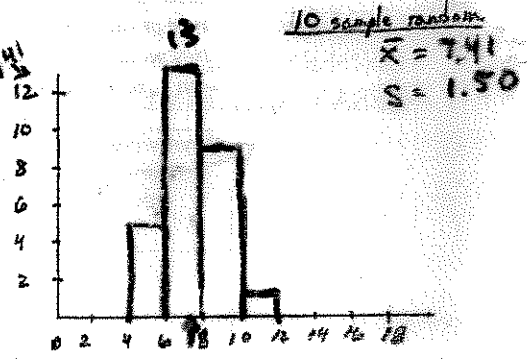
5 sample random



- 5) Do any of the plots have a center that is larger than the true average? yes Which?

initial judge & sample judge

- 6) Discuss the concept of bias in sampling and how it relates to the two sampling methods, subjective and random, you just used.



- 7) Larger Random Samples:
 - a) Use a random number table or your calculator to select 10 distinct (no repeats) random numbers between 00 and 99. Fill out the table.

Number					
Area					
Number					
Area					

Compute the average of the ten areas _____