Lab #8: Exam 2 Review

1) Define the following and then give the appropriate equation.
a. Percentile Rank
b. Percentile Points

2) You just completed a survey asking college students how many hours a week they spend at parties. The results are presented below.

Interval	Exact Limits	Midpoint	f	p	Cf	C%
30 – 32	29.5 – 32.5	31	1	0.03	30=N	100
27 – 29	26.5 – 29.5	28	1	0.03	29	97
24 – 26	23.5 – 26.5	25	3	0.10	28	93
21 – 23	20.5 – 23.5	22	2	0.07	25	83
18 – 20	17.5 – 20.5	19	2	0.07	23	77
15 – 17	14.5 – 17.5	16	3	0.10	21	70
12 – 14	11.5 – 14.5	13	1	0.03	18	60
9 – 11	8.5 – 11.5	10	3	0.10	17	57
6 – 8	5.5 – 8.5	7	8	0.27	14	47
3 – 5	2.5 – 5.5	4	6	0.20	6	20
			∑f=30	**∑p=1**		

Using this data, compute the:
a. Score at the 92nd percentile point .
b. Percentile Rank for a score of 6.
c. IQR & SIQR.

3) Sandra just received the results from her ACT test. She scored 27 in Science and 28 in Reading Comprehension. Given the following descriptive statistics for the two sections of the test, in which section did she receive the better score?

	Science	Reading Comp.
Mean	22	20
SD	2	4

4) The following data represents the number of 12 oz. sodas that each of 10 people drink in a day: 1, 1, 1, 1, 2, 3, 4, 5, 6, 6.
Compute the Mean, Median, Mode, Range, Variance, and Standard Deviation.

5) Answer the following questions based on the normal distribution of IQ where the mean = 100 and the standard deviation = 15.
a. Percent of the distribution between the scores of 82 and 111 as well as how many people, out of 50, will score between 82 and 111?
b. The score at the 13th percentile point.

6) Define:
a. Correlation
b. Correlation Coefficient

7) Illustrate the relationship and compute the appropriate correlation coefficient for the following data (five pairs of scores):

Person	Height (inches)	Athletic Ability (ranked)
A	71	1 = best
B	62	3
C	74	5
D	69	4
E	72	2

8) **a.** Why might we wish to compute reliabilities?
b. What is the difference between inter- and intra-observer reliabilities?