

Stats practice exam 4

1. Below is data concerning number of driving errors for legally intoxicated drivers (alcohol) and those with no alcohol in their system (control). Is there a relationship between intoxication and driving performance? Test at $\alpha = .05$.

alcohol	control
9	4
7	7
6	3
10	6

2. Two supervisors evaluating employee performance categorize each employee's performance as: (1) excellent, (2) good, (3) average, or (4) poor. Compute percentage of agreement and Cohen's Kappa.

		supervisor A			
		excellent	good	average	poor
super B	excellent	45	5	0	5
	good	25	35	5	20
	average	10	5	15	0
	poor	5	5	0	20

3. The following data is from an experiment examining two drug treatments on pain ratings (higher the rating, the greater the pain). Is there a relation between treatment and pain rating? Based on your biserial correlation, would you expect an independent samples t-test to uncover differences between the two groups? Why or why not?

treatment 1	treatment 2
10	11
2	5
1	2
15	18
7	9

4. Two faculty on the graduate admissions committee are compared to determine if there is a high level of agreement concerning whether applicants are acceptable for graduate school. Compute the percentage of agreement and Cohen's Kappa on the data below.

		faculty A	
		accept	reject
faculty B	accept	20	40
	reject	10	80