Homework 1

Applications

 $1. \ 1.6$

- 2. 1.7a-e Rather than assuming the new drug is better in all trials, assume the new drug is better in all but one trial; verify results with appropriate graphs.
- 3. A clustering algorithm generated the following cluster assignments for 200 observations from known groups. Does there seem to be a strong pattern of association among these nominal categories? Using estimates of the π_{ij} , compute an uncertainty coefficient by hand and then compare your answer to SAS output. How strong does the relationship seem to be?

	Assigned Cluster			
Actual Cluster	1	2	3	4
1	50	0	0	0
2	0	9	40	1
3	0	0	23	27
4	0	36	0	14
0.10				

 $4. \ 2.10$

 $5.\ 2.15$

Theory and Methods

1. 1.29 (For part c, test whether the multinomial outcome $(n_1, n_2, n_3) = (2, 18, 3)$ in a multinomial experiment follows the pattern provided in the problem statement).