Topic: 1.12 – Tutorial 3

1. Theory predicts that the proportion of beans in four groups A, B, C, D should be 9: 3: 3: 1. In an experiment among 1600 beans, the numbers in the four groups were 882, 313, 287 and 118. Does the experiment support the theory?

2. Out of 8000 graduates in a town 800 are females, out of 1600 graduate employees 120 are females. Use chi square to determine if any distinction is made in appointment on the basis of sex. Value of chi square at 5% level for one degree of freedom is 3.84.

3. Test the fidelity and selectivity of 190 radio receivers produced the results shown in the following table:

Selectivity	Fidelity		
	Low	Average	High
Low	6	12	32
Average	33	61	18
High	13	15	0

4. Two sample polls of votes for two candidates A and B for a public office are taken one form among residents of rural areas. The results ate given below. Examine whether the nature of the area is related to voting preference in the election.

Area / Votes for	A	B	Total
Rural	620	380	1000
Urban	550	450	1000
Total	1170	830	2000