Name:Math 130 Day 23 Lecture WorksheetDate:Sections 12.2 part 2 and 13.1: The Homogeneity of Proportions Test and One-Way ANOVA

Ex 2 (Sec. 12.2, Ex 4, pg. 607): Zocor is a drug manufactured by Merck and Co. that is meant to reduce the level of LDL (bad) cholesterol and increase the level of HDL (good) cholesterol. In clinical trials of the drug, patients were randomly divided into three groups. Group 1 received Zocor, group 2 received a placebo, and group 3 received cholestyramine, a cholesterol-lowering drug currently available. The table below contains the number of patients in each group who did and did not experience abdominal pain as a side effect. Is there evidence to indicate that the proportion of subjects in each group who experienced abdominal pain is different at the  $\alpha = 0.01$  significance level?

	Group 1 (Zocor)	Group 2 (Placebo)	Group 3 (Cholestyramine)				
# of people							
who had	51	5	16				
abdominal pain							
# of people who							
did not have	1532	152	163				
abdominal pain							

a) Use the P-value method

b) Use the rejection region method

Ex 1 (Sec. 13.1, Hw #15, pg. 633): Which Delivery Method Is Best? At a community college, the mathematics department has been experimenting with four different delivery mechanisms for content in their Intermediate Algebra courses. One method is the traditional lecture (method I), the second is a hybrid format in which half the class time is online and the other half is face-to-face (method II), the third is online (method III), and the fourth is an emporium model from which students obtain their lectures and do their work in a lab with an instructor available for assistance (method IV). To assess the effectiveness of the four methods, students in each approach are given a final exam with the results shown below. Do the data suggest that any method has a different mean score from the others at the 0.05 significance level?

Method I	81	81	85	67	88	72	80	63	62	92	82	49	69	66	74	80
Method II	85	53	80	75	64	39	60	61	83	66	75	66	90	93		
Method III	81	59	70	70	64	78	75	80	52	45	87	82	79			
Method IV	86	90	81	61	84	72	56	68	82	98	79	74	82			

a) Use the P-value method

b) Use the rejection region method