

Instructions: Answer each question as thoroughly as possible. Round answers to 4 decimal places as needed. Exact answers are best when possible. Be sure to answer all parts of each question.

1. Randomly selected records of 140 convicted criminals reveal that their crimes were committed on the days of the week listed in the table below. Test the hypothesis that all the days of the week were equally likely to have a crime committed. Test at a 1% significance level.

Days When Crimes Were Committed								
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
f_o	17	21	22	18	23	24	15	140

2. Using the data in the table below, conduct a test of independence to see if snack preference and game preference are independent or not. Clearly state your hypotheses and conclusion.

	Pizza Rolls	Chips and Dip	Cookies	Totals
Poker	10	3	12	25
Trivial Pursuit	8	14	7	29
Monopoly	14	17	7	38
Wii Bowling	12	7	4	23
Totals	44	41	30	115

3. Explain when you should use a Fisher Exact test rather than a standard χ^2 test. What conditions have to be met?