

GOB: Complete the questions below:

- 1) **Binging and politics.** Students in a large Statistics class at a university in the Northeast were asked to describe their political position and whether they had engaged in binge drinking (5 drinks at a sitting for a man; 4 for a woman).

		Political Position			Total
		Conservative	Moderate	Liberal	
Binge Drinking	In the past 3 days	7	19	14	40
	In the past week	9	19	28	56
	In the past month	3	8	23	34
	Some other time	8	15	22	45
	Never	9	22	20	51
	<b>Total</b>	<b>36</b>	<b>83</b>	<b>107</b>	<b>226</b>

- a) What kind of chi-square test is appropriate—goodness-of-fit, homogeneity, or independence?
- b) State your hypotheses.
- c) How many degrees of freedom are there?
- d) State and check the conditions.
- e) Determine the expected value conservatives who engaged in binge drinking in the past month (show calculations).
- f) Calculate the component of  $\chi^2$  for conservatives who engaged in binge drinking in the past month (show calculations).
- g) The calculation yields  $\chi^2 = 10.10$ , with a P-value of 0.26. State your conclusion.
- h) Would you expect that a larger sample might find statistical significance? Explain.

2) Complete problem 30 (page 646) below.

a)