

HOMEWORK: χ^2 Distribution

1. In a random sample of 300 individuals asked to respond a survey, 100 (randomly selected) received the request by email and 200 by regular mail. Is there a difference in the rate of response to the two types of surveys? (a) Test at $\alpha=.05$. (b) Test at $\alpha=.01$.

	EMAIL	SNAIL MAIL	
RESPONDED	90	90	180
DID NOT RESPOND	10	110	120
	100	200	300

2. Using the Data below, can you conclude that there is a relationship between ability in mathematics and interest in statistics? Use $\alpha=.01$.

		Ability in Mathematics		
		Low	Average	High
Interest in Statistics	Low	63	42	15
	Average	58	61	31
	High	14	47	29