

Math 110 Final Exam Review

Contraceptive Use		Female	Male	Total	Expected Freq's in Parentheses
	Rare/Never	210 (224)	350 (336)	560	
	Sometimes	190 (204)	320 (306)	510	
	Always	400 (372)	530 (558)	930	
	Total	800	1200	2000	

$$\alpha = .05$$

62. Two Variables: Gender & Contraceptive use
 63 Both are categorical.

64 Gender

65 Contraceptive Use

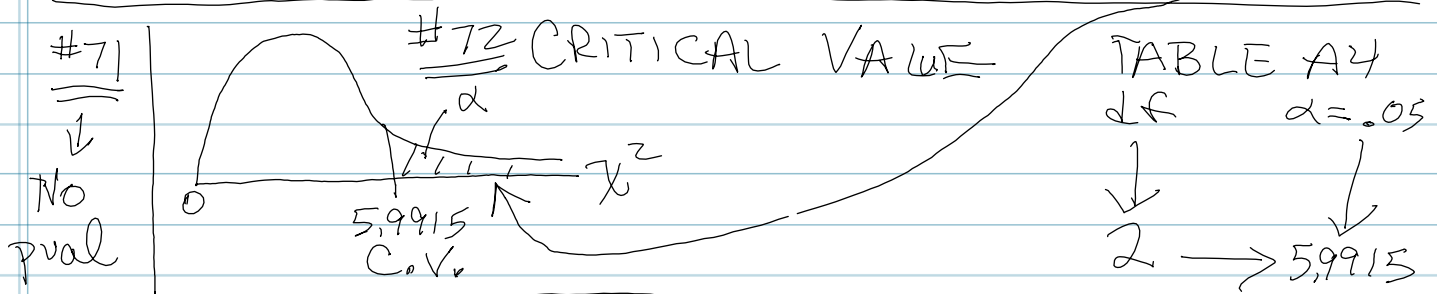
66 See above

67 Each E is ≥ 5 , so yes.

O	E	$(O-E)^2/E$
210	224	$(210-224)^2/224 = .875$
190	204	0.961
400	372	2.108
350	336	0.583
320	306	0.641
530	558	1.405
		6.573

69
 T.S.: $\chi^2 = \sum \frac{(O-E)^2}{E} = 6.573$

#70 $df = (rows-1)(cols-1) = (3-1)(2-1) = 2 \cdot 1 = 2$



#73 T.S. > C.V. → reject H_0 & Support H_1 .

#74 H_0 : gender is independent of contraceptives
 H_1 : they are dependent.

○ The data don't support the claim that contraceptives are indep. of gender.