Problem #3.3

	Second Shot	
	$S_2 = 1$	$S_2 = 0$
First Shot $S_1 = 1$	251	34
$S_1 = 0$	48	5

$H_0 : S_1 \perp\!\!\!\perp S_2$ vs H_1 : not H_0

Data is not ordinal so a restricted alternative is not necessary.

Statistics	Value	p-value	Conclusion
X^2	0.2727	0.6015	Do not reject H_0, there is evidence that the first and second shot are independent
G^2	0.2858	0.5930	Do not reject H_0, there is evidence that the first and second shot are independent

Problem #3.9(a)

Table 1: Counts			Table 2: Perason Standard Residuals		
	Drugs	No Drugs		Drugs	No Drugs
Schizophrenia	105	52	Schizophrenia	9.6581715	-9.6581716
Affective disorder	19	2	Affective disorder	-6.3053235	6.3053236
Neurosis	8	0	Neurosis	-6.1759785	6.1759786
Personality disorder	47	18	Personality disorder	1.3491055	-1.3491055
Special Systems	12	13	Special Systems	0.6542325	-0.6542325

OUTSTANDING: conclusion

Problem #3.12

Gamma, γ: 0.3873
95% CI: (0.3156, 0.4591)

Gamma is 0.3873 which indicates that when attitudes disagree (i.e. counts that are not on the diagonal), the proportion of concordant attitudes towards abortions ($\uparrow$ school $= \uparrow$ approval) is larger than the proportion of discordant attitudes. This means that there is greater approval of abortion when there is more schooling.

Problem #3.15

	Type of CI for OR	95% CI
(a)	Woolf (i.e. Wald)	$(0, \infty)$
(b)	Cornfield's Exact	$(2.646, \infty)$ OUTSTANDING: Answer: $(0.618, \infty)$
(c)	Profile Likelihood	$(5.117, \infty)$

Problem #3.31

OUTSTANDING: