

#5. There is no calculating to do on this one. You should be able to draw a “reject H_0 ” or “fail to reject H_0 ” conclusion based upon the p-value and the alpha-value. Then interpret that conclusion to decide if there is a connection between ethnicity and being stopped by police. (A connection means ethnicity and being stopped are dependent, while no connection means they are independent.)

#6. Do you see a p-value?

#7. I’ve done the entire problem here. You should be able to mimic this one to do the rest of them.

H_0 : Treatment & Flu are independent
 H_1 : Treatment & Flu are dependent

Contingency Tables:

	A	B	C	D
1	14	1056	1070	OBS
2	95	437	532	
3	109	1493	1602	
4				
5				
6	72.8	997.2	1070	EXP
7	36.2	495.8	532	
8	109	1493	1602	

DR: If $\chi^2_{obs} > \chi^2_c$ then rej H_0 .

$$df = (r-1)(c-1) = 1*1 = 1$$

$$\alpha = 0.05$$

From the table, $\chi^2_c = 3.841$, so

DR: If $\chi^2_{obs} > 3.841$ then rej H_0 .

	A	B	C	D	E
1	O	E	O-E	$(O-E)^2$	$(O-E)^2/E$
2	14	72.8	-58.8	3457.44	47.49
3	1056	997.2	58.8	3457.44	3.47
4	95	36.2	58.8	3457.44	95.51
5	437	495.8	-58.8	3457.44	6.97
6					
7				$\chi^2_{obs} =$	153.44

Since $153.44 > 3.841$, we reject H_0 .
 Treatment & Flu are dependent

#12 & 21) Follow the same steps as on #7.