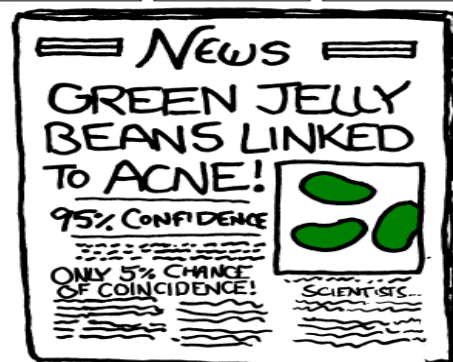
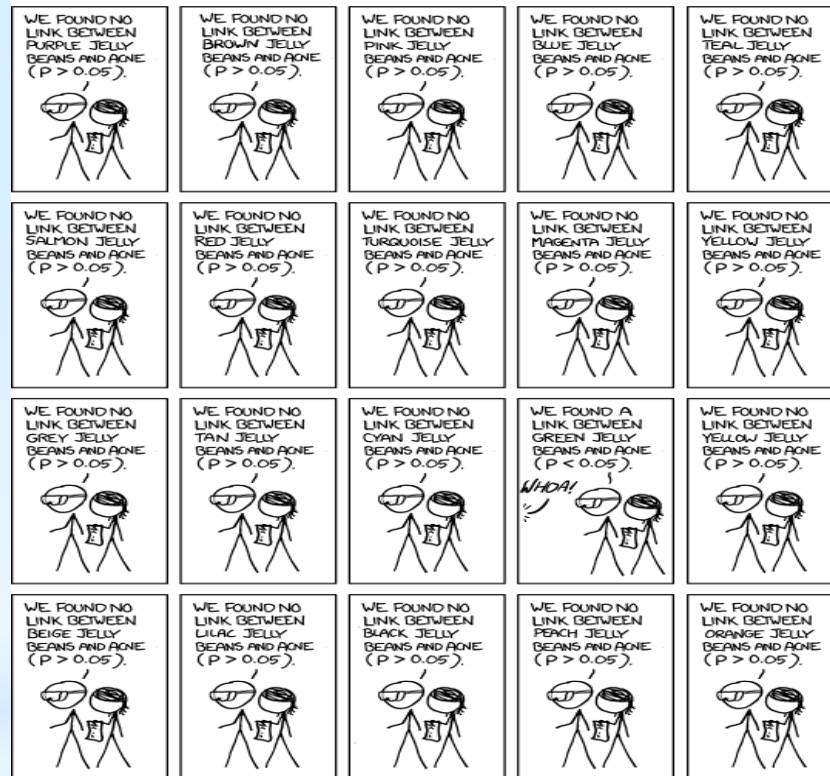
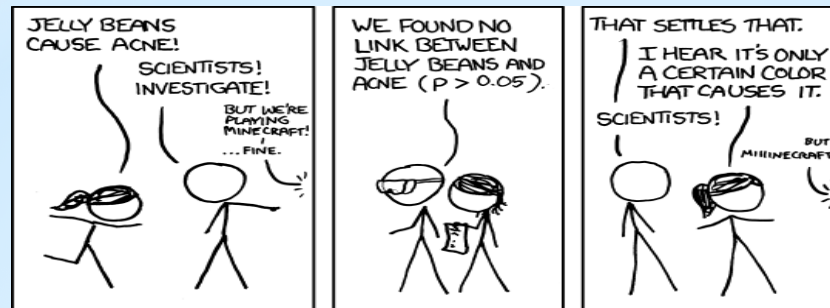




ANOVA = multiple comparisons in my data, can't use the t-test

t-tests, one-way ANOVA

Admissions to the Psychiatric ward of a hospital by type of moon and whether it was Friday the 13th.

Are there more admissions during a Full moon? On Friday the 13th?

Moon Type	Hospital Admissions	Friday the 13th
Before	6.40	No
Before	7.10	No
Before	6.50	No
Before	8.10	No
Before	8.60	No
Before	9.40	No
Before	11.50	No
Before	9.50	Yes
Before	5.40	No
Before	11.70	Yes
Before	10.80	Yes
Full Moon	12.00	No
Full Moon	13.00	No
Full Moon	14.00	No
Full Moon	12.00	No
Full Moon	16.00	Yes
Full Moon	11.00	No
Full Moon	13.00	No
Full Moon	16.00	Yes
Full Moon	19.00	Yes
Full Moon	13.00	No
Full Moon	20.00	No
After	11.40	Yes
After	10.30	No
After	15.80	Yes
After	11.00	No
After	11.10	No
After	5.80	No
After	9.20	No
After	7.90	No
After	7.70	No
After	11.00	Yes
After	10.00	Yes
Before	9.60	No
Full Moon	14.00	No
After	12.10	Yes

* Univariate Summary Statistics

Moon Type		
	Frequency	Percent
Before Full Moon	12	33.3
During Full Moon	12	33.3
After Full Moon	12	33.3
Total	36	100

Friday the 13th?		
	Frequency	Percent
No	25	69.4
Yes	11	30.6
Total	36	100

* Bivariate Summary Statistics

	Friday the 13th?		Total
	No	Yes	
Before Full Moon	9	3	12
During Full Moon	9	3	12
After Full Moon	7	5	12
	25	11	36

Admissions				
Friday the 13th?	Mean	Std. Deviation	Median	N
No	10.30	3.29	10.30	25
Yes	13.03	3.11	11.70	11
Total	11.14	3.43	11.00	36

Moon Type	Mean	Std. Deviation	Median	N
Before Full Moon	8.72	2.07	9.00	12
During Full Moon	14.42	2.81	13.50	12
After Full Moon	10.28	2.53	10.65	12
Total	11.14	3.43	11.00	36

* ANOVA Statistics

Admissions				
Friday the 13th?	Mean	Std. Deviation	Median	N
No	10.30	3.29	10.30	25
Yes	13.03	3.11	11.70	11
Total	11.14	3.43	11.00	36

Independent groups
t-test $p = 0.026$

Moon Type	Mean	Std. Deviation	Median	N
Before Full Moon	8.72	2.07	9.00	12
During Full Moon	14.42	2.81	13.50	12
After Full Moon	10.28	2.53	10.65	12
Total	11.14	3.43	11.00	36

One-way Analysis of Variance $p = 0.0009$

Post-hoc comparisons:

Post-hoc tests show that: During a Full Moon is significantly higher than Before or After a Full moon.

* ANOVA Statistics - two-way ANOVA

Moon Type	Friday the 13th?	Mean	Std. Deviation	Median	N
Before Full Moon	No	8.07	1.92	8.10	9
	Yes	10.67	1.11	10.80	3
	Total	8.72	2.07	9.00	12
During Full Moon	No	13.56	2.60	13.00	9
	Yes	17.00	1.73	16.00	3
	Total	14.42	2.81	13.50	12
After Full Moon	No	9.00	1.97	9.20	7
	Yes	12.06	2.22	11.40	5
	Total	10.28	2.53	10.65	12

**Hey girl,
can I sing you a
song I
wrote
about**



**Bonferroni
corrections
and multiple
comparisons?**

<http://biostatisticsryangoslingreturns.tumblr.com/>

<u>P-VALUE</u>	<u>INTERPRETATION</u>
0.001	HIGHLY SIGNIFICANT
0.01	
0.02	
0.03	
0.04	SIGNIFICANT
0.049	
0.050	OH CRAP. REDO CALCULATIONS.
0.051	ON THE EDGE OF SIGNIFICANCE
0.06	
0.07	HIGHLY SUGGESTIVE, SIGNIFICANT AT THE $P < 0.10$ LEVEL
0.08	
0.09	
0.099	HEY, LOOK AT THIS INTERESTING SUBGROUP ANALYSIS
≥ 0.1	

CATSANOVA

