Neyman-Pearson Hypothesis Testing

- $\bullet \ H_o\colon \mu=0$
- H_a : $\mu = n$
- $\bullet\;$ Requires a rejection region, a small area where the null hypothesis should be rejected
- $\bullet\,$ If the observed value falls in the region, H_a is true, reject $H_o,$ vice versa.

Fisher's Significance Testing

- Select an appropriate test
- Set up H_o
- $\bullet\,$ Calculate the theoretical proabability of the results under ${\rm H_o}$ (p)
- If $p = \alpha$: statistically significant
- If $p>\alpha$... statistically insignificant

Null Hypothesis Significance Testing

- $\bullet~$ $\rm H_o\colon$ (if can dy causes cancer, assume candy does not cause cancer and find counter arguments)
- H_a : $\theta[<,>,\neq]\theta_1$
- Find its distribution under Ho
- $\bullet\,$ Define a critical region such that if in critical region, reject $H_{\rm o}.$
- $\bullet~$ Else fail to reject $\rm H_{o}$

t-Statistics and t-Tests

• i++;

ANOVA

insert table here