

Significant Linear Correlation

(There is not) vs (There is)

Claim:

There is no linear correlation between two variables, this implies that $r = 0$

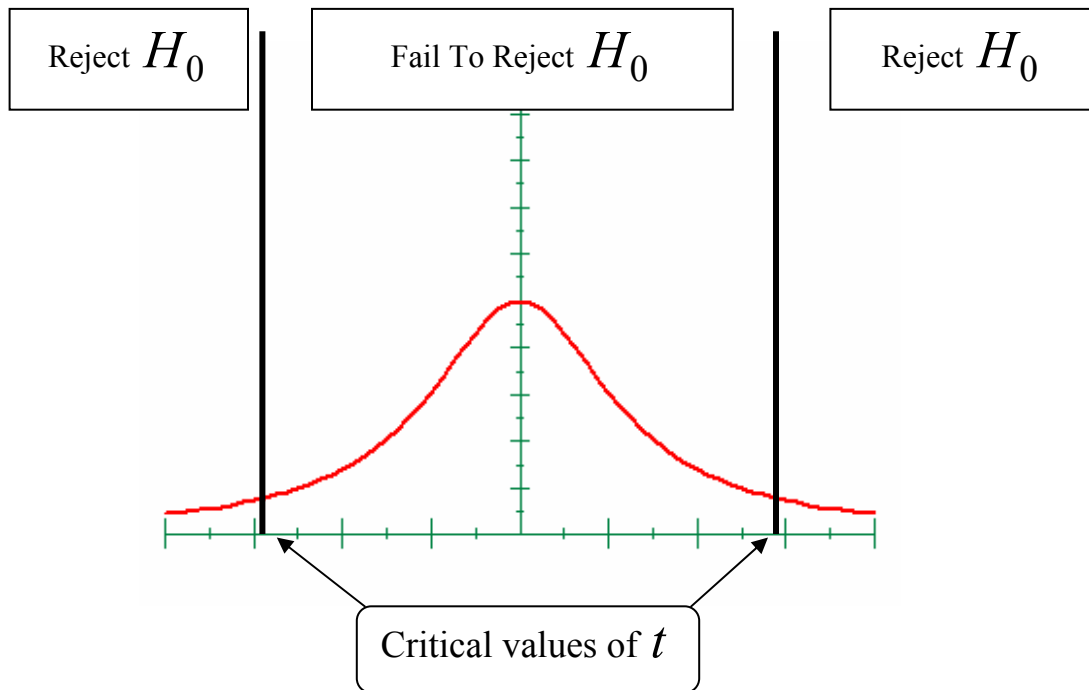
1) Set up H_0 and H_1 :

$H_0: \rho = 0$ (There **is no** linear correlation); Claim

$H_1: \rho \neq 0$ (There **is a** linear correlation); This a two-tail test

2) Find critical values of t with $n - 2$ degrees of freedom.

3) Draw your bell-curve and identify the reject and fail to reject region for H_0 only.



4) Compute the test value $t = r \sqrt{\frac{n-2}{1-r^2}}$

5) Determine the validity of the claim.