

REJECTION REGION

ttest -> tinv

let n be the degree of freedom(length of sample - 1)

-left-tailed: $(-\infty, \text{tinv}(\alpha, n))$

-two-tailed: $(-\infty, \text{tinv}(1 - \alpha/2, n)) \cup (\text{tinv}(\alpha/2, n), \infty)$

-right-tailed: $(\text{tinv}(1 - \alpha, n), \infty)$

vartest -> chi2inv

let n be the degree of freedom(length of sample - 1)

-left-tailed: $(-\infty, \text{chi2inv}(\alpha, n))$

-two-tailed: $(-\infty, \text{chi2inv}(\alpha/2, n)) \cup (\text{chi2inv}(1 - \alpha/2, n), \infty)$

-right-tailed: $(\text{chi2inv}(1 - \alpha, n), \infty)$

ztest -> norminv

-left-tailed: $(-\infty, \text{norminv}(\alpha, n))$

-two-tailed: $(-\infty, \text{norminv}(\alpha/2, n)) \cup (\text{norminv}(1 - \alpha/2, n), \infty)$

-right-tailed: $(\text{norminv}(1 - \alpha, n), \infty)$

ttest2 -> tinv

let n be the degree of freedom(length of sample1 + length of sample2 - 2)

-left-tailed: $(-\infty, \text{tinv}(\alpha, n))$

-two-tailed: $(-\infty, \text{tinv}(\alpha/2, n)) \cup (\text{tinv}(1 - \alpha/2, n), \infty)$

-right-tailed: $(\text{tinv}(1 - \alpha, n), \infty)$

vartest2 -> finv

let n_1, n_2 be the degrees of freedom($\text{length of sample1} - 1, \text{length of sample2} - 1$)

-left-tailed: $(-\infty, \text{finv}(\alpha, n_1, n_2))$

-two-tailed: $(-\infty, \text{finv}(\alpha/2, n_1, n_2)) \cup (\text{finv}(1 - \alpha/2, n_1, n_2), \infty)$

-right-tailed: $(\text{finv}(1 - \alpha, n_1, n_2), \infty)$