

Chapter 11 (not on midterm)

Stat 244
2-9-12

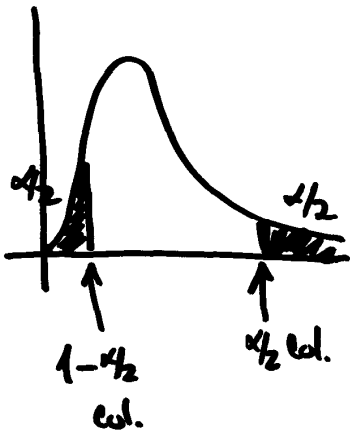
①

Hypothesis test for σ^2

$df = n - 1$

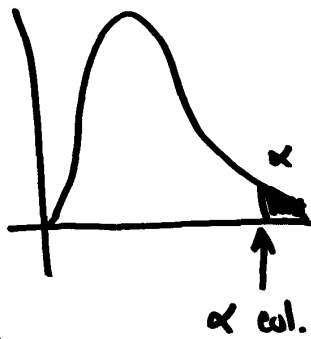
$H_0: \sigma^2 = _$

$H_a: \sigma^2 \neq _$



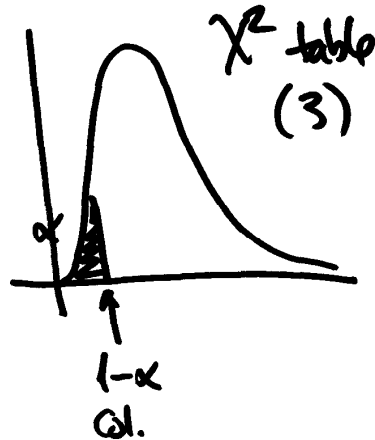
$H_0: \sigma^2 \leq _$

$H_a: \sigma^2 > _$



$H_0: \sigma^2 \geq _$

$H_a: \sigma^2 < _$



②

Test stat = $\frac{(n-1)S^2}{\sigma_0^2}$

Example: In a sample of 10 observations of items from an assembly line, we find a standard deviation of 4.27. Is there evidence that the population variance is greater than 12? Use $\alpha = .05$.

$H_0: \sigma^2 \leq 12$

$H_a: \sigma^2 > 12$

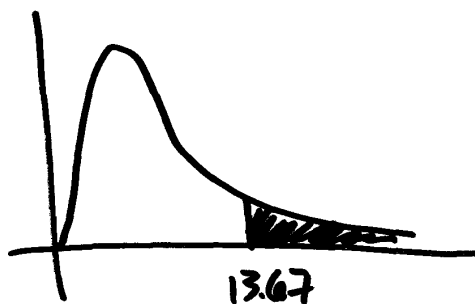


③

$$\text{Test stat} = \frac{(n-1)s^2}{\sigma_0^2} = \frac{9(4.27)^2}{12} = 13.67$$

Accept H_0 . We failed to show that the population variance is greater than 12.

p-value:



HW p. 459
#10

$$.1 < \text{pvalue} < .9$$

④

Midterm exam Tuesday 2/14

- Photo ID

Content: Chapters 8, 9, 10

- Scantron 882

- pencil & eraser

Chp 8 C.I. for μ [z, t]

- Calculator

C.I. for p [z]

- Tables 1 & 2

$$n = \left(\frac{z_{\alpha/2} s}{E} \right)^2 \text{ OR}$$

- 1 page of notes

$$\begin{aligned} \text{for } \mu &\rightarrow \\ p &\rightarrow n = \frac{z_{\alpha/2}^2 \bar{p} \bar{q}}{E^2} \end{aligned}$$

5

Chp 9 H.T. for μ [z, t]

H.T. for p [z]

Chp 10 H.T. for μ_1 vs μ_2 [z, t]

H.T. for μ_0 (matched pairs) [t]

H.T. for p_1 vs p_2