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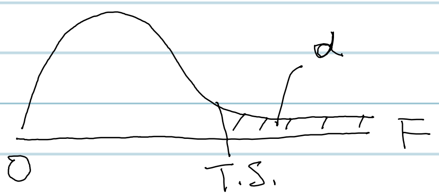
Test Stat : $F = \dfrac{n s_{\bar{x}}^2}{s_p^2}$ $(= 7.2864)$

<u>Critical Value</u> (from the F distribution)



Right Tail Test Always
(because when H_0 is false the $\bar{x}$ values are very different so $s_{\bar{x}}^2$ will be large & $F = \dfrac{n s_{\bar{x}}^2}{s_p^2}$ will be large also.)

Table A5

df_1 = numerator degrees of freedom

$df_1 \longrightarrow k-1$

denominator degrees of freedom

df_2

$\downarrow$

$k(n-1) \longrightarrow$ Right Tail C.V.

For our ex. let's use $\alpha = .05$ $k=5$, $n=7$

$\alpha = .05$ | $df_1 \rightarrow k-1 = 4$

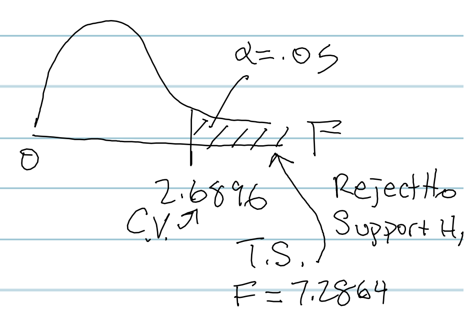
df_2

$\downarrow$

$k(n-1)$

$= 5 \cdot (7-1)$

$= 30 \longrightarrow$ 2.6896



P-val requires a computer (optional)

Conclusion : Reject H_0 if T.S. > C.V.

For this example, we rejected H_0 & will support H_1.

The data support the claim that the mean temp's are different. (The treatments are more effective than placebo).