

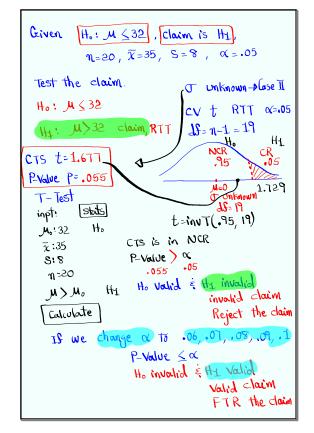
Feb 19-8:47 AM

(SG 25) Testing One Population Mean: 1) Set up the E Hz: Alany's identify the l Ho: μ≥μo **Claim** ) Ho: M≤Mo Ho: M= Mo H1:从丰儿。 ዘ1: ሥንሥ HI: M<M. LTT RTT TTT ١ 2) Critical Values Case I: J Known Case II: J UNKnown invT, df=n-t invNorm Drawing, Labeling, Shading, Full TT Command required 3) Computed Test statistic & P-Value Case I: O Known | Case II: O UNKNOWN STAT TESTS Z-Test STAT TESTS T-Test inpt: Stats upt: stats 4) use Testing chart to Jetermine the Validity of H° & HI 5) Draw Final Conclusion about the claim Reject the claim OR FTR the Claim

May 19-1:53 PM

Given: H: 11=85, Claim is Ho, n = 32,  $\overline{\chi} = 88$ ,  $\sigma = 10$ ,  $\alpha = .02$ Test the claim • T Known -> Case I H.: M=85 claim CV Z TTT  $\alpha = .02$ Ηt Ηı H1: 1+85 TTT H٥ NCR ⊂R CR .98 .01 .01 1 Tre ault CTS Z= 1.697 2.326 M=0 -2.326 P-Value P=.090 Z = invNorm(.99,0,1)Z-Test STATS inpt: CTS is in NCR "л₀:85 H. P-Value > ~ σ:10 .02 Hovalid & Hz invalid  $\overline{\chi}:$  88 Valid claim n: 32 => FTR the claim M ≠ M° HI IS we change a to .1 Calculate P-Value ≤ ∝ I. PO. Ho invalid & HI Valid we reject the claim

May 19-2:04 PM



May 19-2:17 PM

Gllege claims the mean income of all students is at most \$3500 /month.  $M \leq 3500$ 1#0 I took a Sample of 35 Students, their n=35 mean monthly income was \$4000 z=4000 Assume Standard Jeviation of monthly income T = 500of all students is \$500. use x=.1 to test the claim. o Known → Case I Ho: M < 3500 claim RTT  $\alpha = .1$ CV Z H1: M) 3500 RTT H. 41 NCR CTS 2: 5.916 CR .1 P-Value P: 1.7X10 1=1 1.282 Z-Test inpt: (stats) Z=inVNorm (.9,0,1) Ju :3500 H. CTS is in CR J: 500 P-Value < oc  $\bar{\chi} = 4000$ Ho invalid & Hy Valid N= 35 Invalid claim M>M0 H1 Reject the claim calculate)

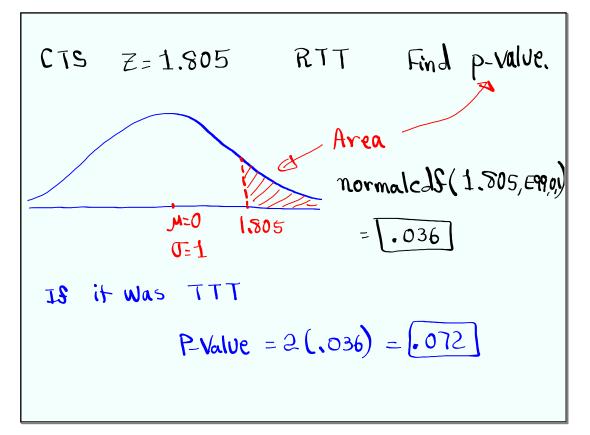
May 19-2:30 PM

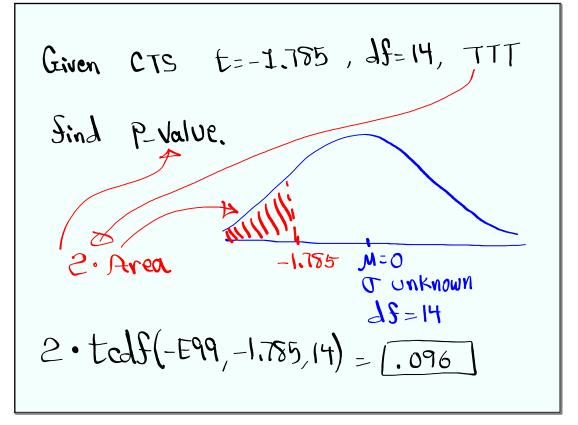
City of LA Housing department <u>Claims</u> the mean rent for all IBR apartments in the M < 1850 city is below \$ 1850/mo. No = H1 I took a sample of 15 such apartments in the city, their mean rent was \$1750/mo. with Standard deviation of \$300. S-310 n=15, 7=1750, use x=.01 to test the claim. · TURKnown→Case II Ho: M> 1850 H1: M< 1850 claim, LTT cv t LTT x=.01\$=n-1=14 S CTS t=-1.291 HL NCRHO CR .99 P-Value P=.109 .01 T-Test M=0 -2.624 J- UNKNOWN CTS is in NCR 25=14 P-Value > x t=invT(.01,14) Ho Valid, HI invalid Invalid claim Reject the claim

May 19-2:47 PM

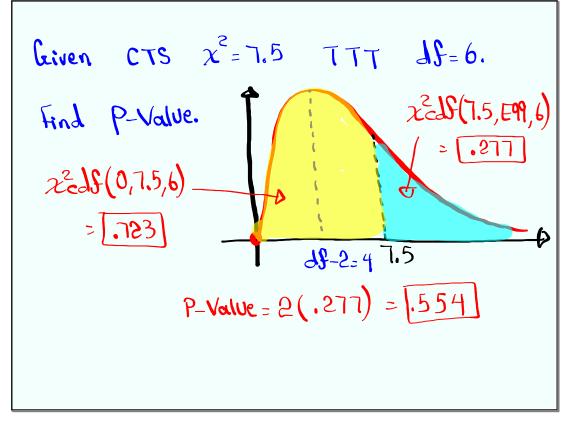
I randomly selected 10 exams. Here are the Scores: 1) find ZES. 68 100 88 57 95 Round to whole #. 55 96 80 90 77  $\overline{\mathbf{x}} \approx 82$ ,  $S \approx 14$ 2) Test the claim that mean of all exams ( Ho: 11=85 claim J UNKNOWN 85. - Case II H1: # #85 TTT CV t TTT NO & ->.05 CTS t= -.678 df = n - 1 = 9Ht #1 P-Value P=. 515 H-CR CR NCR .95 .025 .025 T-Test Ň=O 2.262 -2.262 o unknown CTS is in NCR 15=9 P-Value > x t=invT(.975,9) Ho Valid, Hy invalid valid claim => FTR the claim

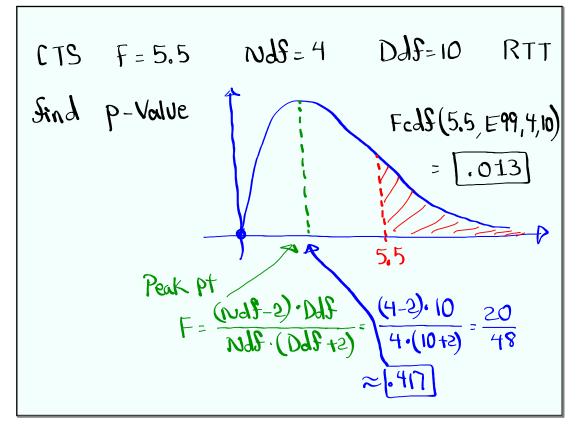
May 19-3:03 PM





May 19-3:19 PM





May 19-3:29 PM

