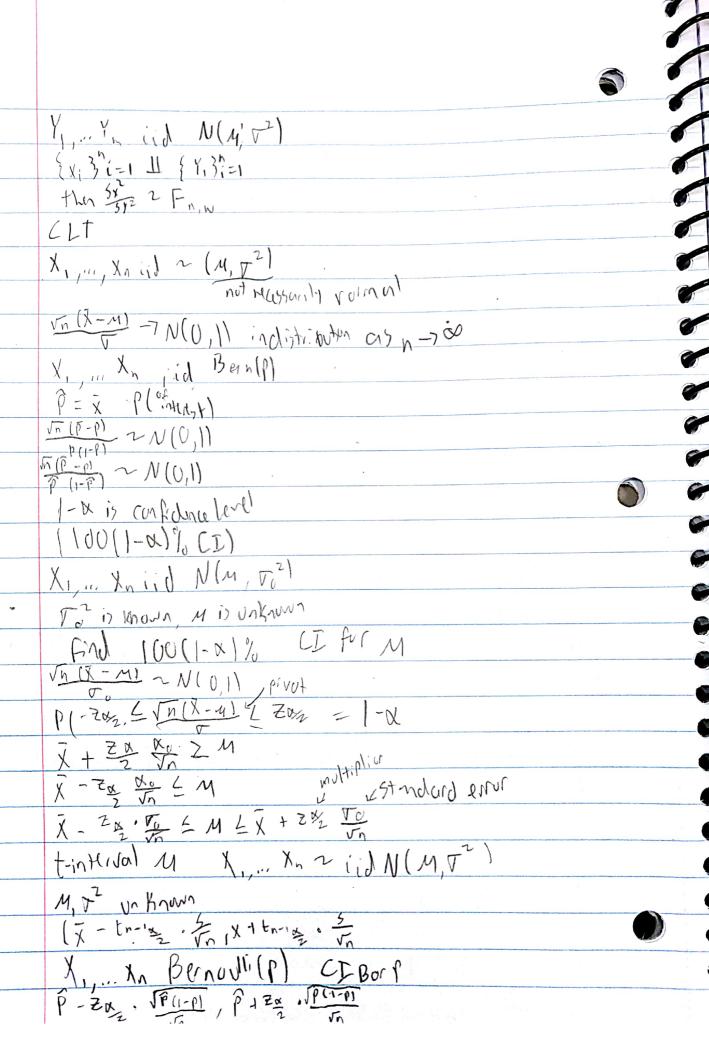
giren simple random sumple {X, ..., X, } From Fo We leaved how to construct point estimator ô of a interval estimator (or confidence interval(CI)) of Q  $[\hat{\theta}, \hat{\theta}_{0}]$ Simulation [ G-Mx SEB, G+Mx SEB red to looked sampling distribution of G (distribution of G) nut easy Normally you can simplify Similarian can always be done 3 Fundamental sampling distribution  $Z_{1, ii}$  Zu iid ~ N(0, 1)  $\chi = Z_{1}^{2} + 1...$   $Z_{0}^{2}$  is  $\chi^{2}$  with  $df L(\chi \sim \chi_{L}^{2})$   $Z \sim N(0, 1), \chi \sim \chi_{L}^{2}$ Then T= 读 is called t distribution with dry (T~ty)  $X_1 \coprod X_2$   $F = \frac{X_1/V_1}{X_2/V_2}$  is called F listibution with of V, and  $\coprod 2 [F \times V_{1/2}]$   $X_1, \dots, X_{U_{11}} \stackrel{?}{d} \sim N(4, V^2)$   $X \sim N(M, V^2)$ 5<sup>2</sup> z /<sub>n-1</sub> = (X,-X) X 11 5<sup>2</sup> Jn (x-m) ~ N(0,1)



nonsymmetric example
X1, Xn (i) N(M, +2) Find 100 (1-01 % CI FUT +2
$(n-1)$ $\sim \chi^2$
P/ 7/2 - 1-13 1- X
$\left(\frac{(n-1)5^2}{x^2}, \frac{(n-1)5^2}{x^2}\right)$
model (publication)
¿Fo: OEO3 Dista prameti spaq, G. E. O
X, 11, X, ~ Fe
hypothes, for example
G. 60, 0, E0
Null Hypotosis to alternative hypothesis to
Complements of each other
For example
Ho: 6=00
Hai Ox Ov
170: Q = Qu Mesus Ha; A>O.
HO: B > Bo reisus 1-16 ! G LOO
Ho' X = 0 Vs Ha: X +0 = this wrong, no holdhesis, just
Hypothesis tests and based on samples I sother is uncertainty involud
never fal "Ho is promed trul" and said "Ho is not rejected at significance of
Ho: 0 = 0 V5 Ha; G=1 (1) reject Ho in (1)
170:0=1 vs 170:00 (2) accept 170 in (1)
nut pu sum confidence in these two
Ho & Ha not treated equally conclusions are not the Same
Hu is favored unless evidence against it is very strong
(to is not percond
Connad by Campan