

Ho: P=0.6.

Ex 2

H,: p >0.6.

level of significance: x = 0.05

given that 7= 70, n=100 Po=0.6.

> $Z = \chi - npo$ J. NP090.

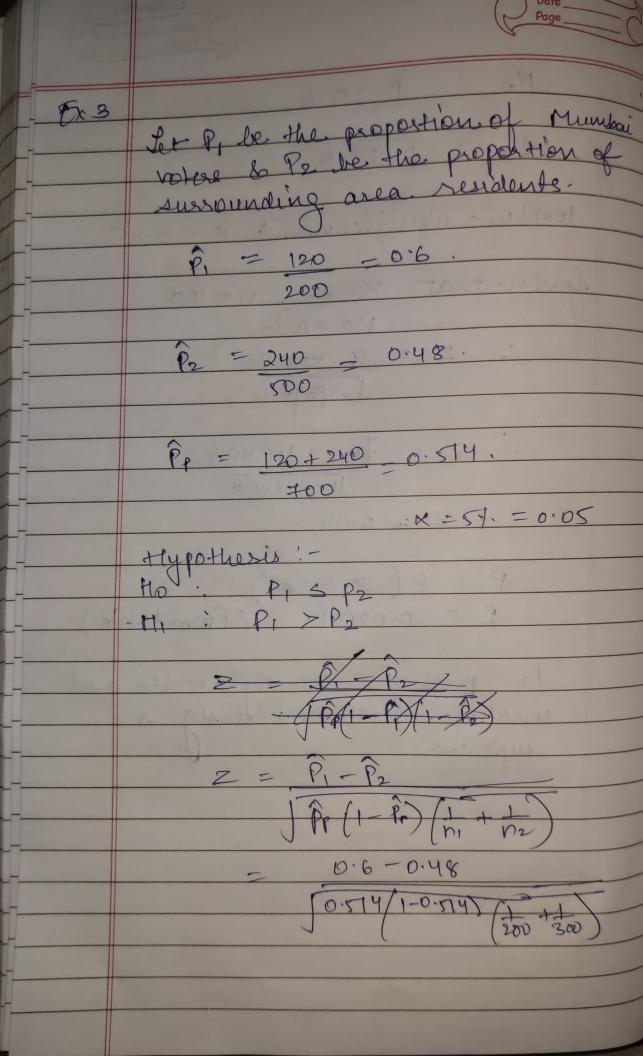
= Z = 70 - 100 x 0 .b .

1100x0.6x0.4

1, 7'= 2.04.

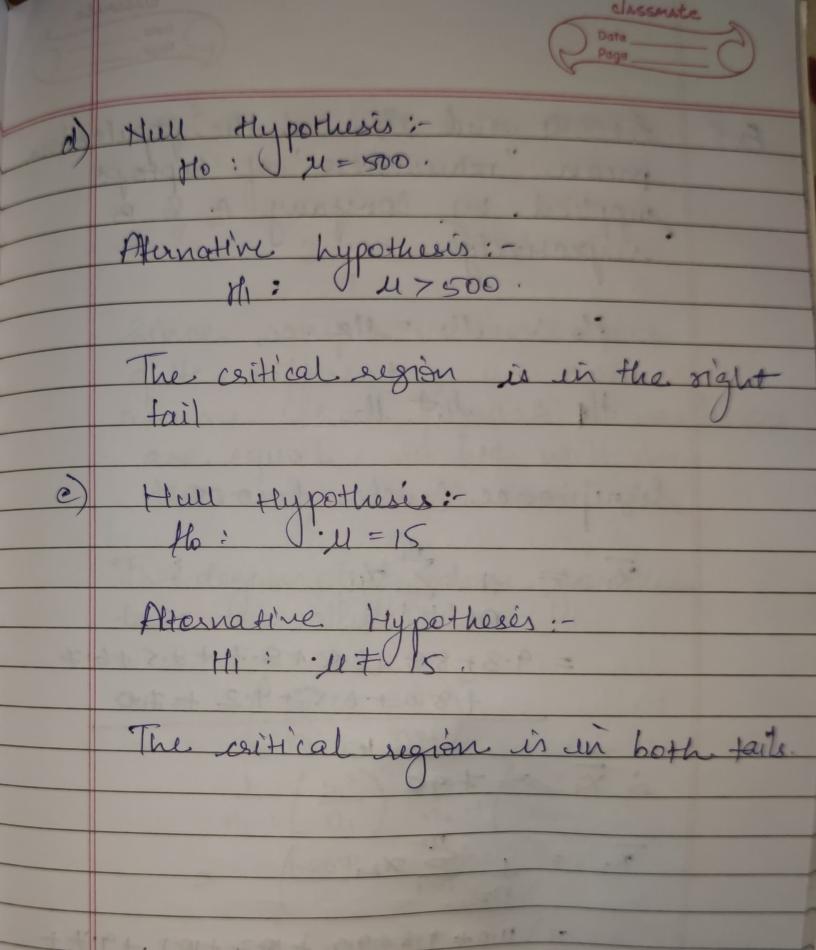
P = P(Z > 204) P = 0.0207 (From table)

As p < x, we reject the and conclude that new drong is superior.



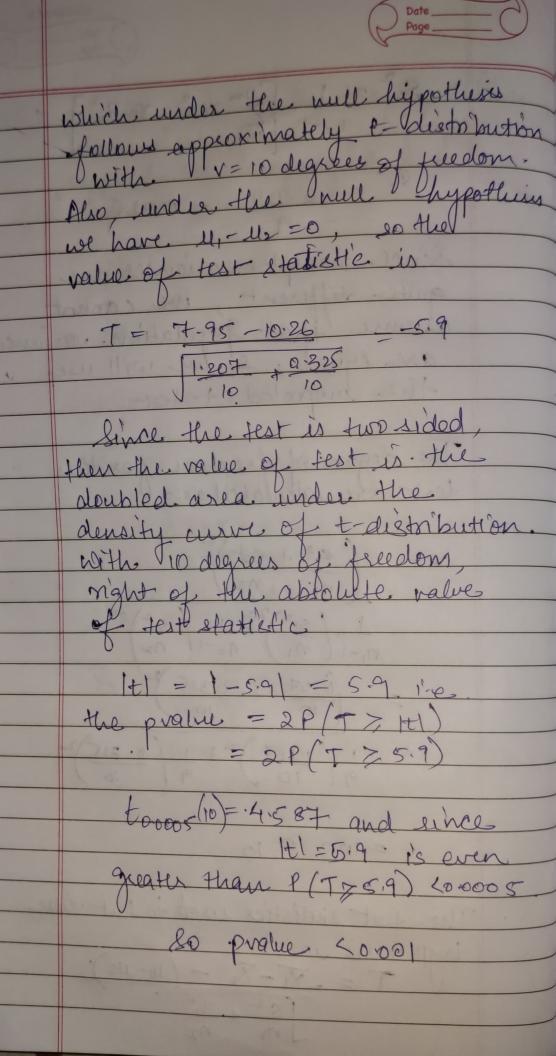
classmate · Z = 2.869 P=P(7 >2.869) As p < x mereject to 8 conclude that the proposition of Munibai higher than the proportion of surrounding area. voters. a) Null Hypothesis. Ho: p=0.2 Alternatives hypothesis The critical region is in night tail. b) Null. Hypothesis -Alternative hypothesis: The critical region is in both tail Null hypothesis:

Ho: P = 0.15. Alternative hypothesis: The critical region is in left



Let III and II2 be the population mean "nobustness" of laptops supplied by company A & B Ex 5 Ho: M = 1/2. Ha: 4,+ 1/2 Significance level = d = 0.05.  $\overline{N} = \sum_{i=1}^{n} \overline{\gamma_i}$ = 9.3+8.8 +6.8.+8.7 +8.5 +6.7 +80+65+92+70 R2 = 1 5 9/21 11-0+ 918+99 + 10.2 +10.1 +9.7+ 11+11-1+10-2+9-6 X2 = 10.26  $S^2 = 1$   $S^1 = 1.207$ .

 $S_{2}^{2} = 1$   $\sum_{i=1}^{N_{2}} \gamma_{2i}^{2} - \gamma_{2i}^{2}$ S2 = 2.924 = 0.325 Since sample variances are quite différent, ve cannot assume that population variances are equal, so we will use the empooled t-test The degree of freedom for this test are calculated as: - 1  $V = \left(\frac{S_1^2 + S_2^2}{N_1}\right)^2$  $\frac{1}{n_{1}-1}\left(\frac{5_{1}^{2}}{n_{1}}\right)^{2}+\frac{1}{n_{2}-1}\left(\frac{5_{2}^{2}}{n_{2}}\right)^{2}$   $=\frac{1}{10}\left(\frac{5_{1}^{2}}{n_{1}}\right)^{2}+\frac{1}{10}\left(\frac{5_{2}^{2}}{n_{2}}\right)^{2}$ 9 (10) 9 (10) = 10.3 210 The test statistics used to fest those hypothesis is " T = XI - X - (111-112)



of p < x, we reject the to in favor of alternative hypothesis and conclude that the mean same for the two companies.