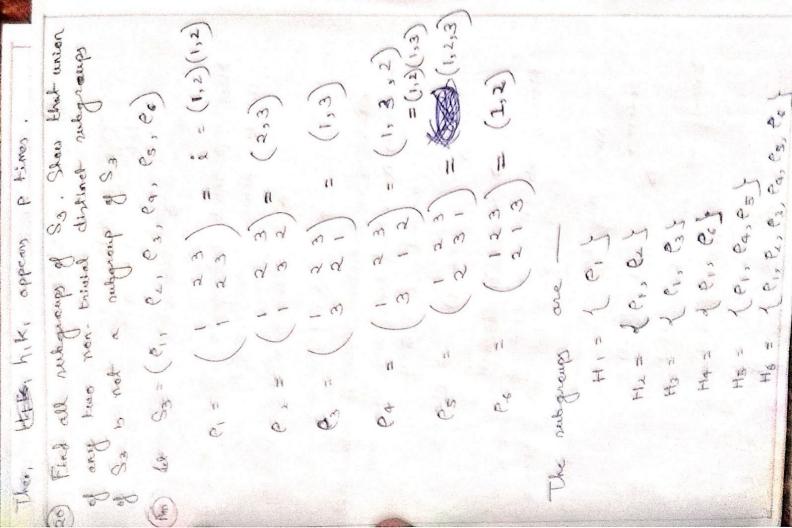
2 (a) = 1 xea: xg=gx, 4gea) H = (h1, h2, -.., hm) and O(H)= m K = (K1, K2, ..., Kn) and O(K) = n The Z(G) is a normal Subgramp of G 7) Piece Hat Z(G) is a mermal subgroup of Then I HK be a nullgroup. Her prove 图中自一日天(元) 中日中日 Hard K be finte nutgranp of a क विर - 12 m 2 (1) 12 check by let us cheene on element pe Z (a) P = gpg" e 2(a) HK = H IK HOK= ( 1, 12, 12) P88-1-88-1 4 B = Bd Sheet for any PEZ(a) 1.e 0 (HNK) = P MOLT WAS (8)

HK= 1 hiki: 1 = 1 = m,1 = 1 = 1 (hit)(FIK) for name + EHAK All the elements hiki may not be distinct. = F F HOK KS= FIK, many times and 1 43 hiki for rame and KI = FIKS distinct distinct (hit) (F'k) = hik, KS KI = FEHIN hr/h1 = KsKi Z + 19 appears in the list Hrks when is equal hik! = hoks hithr = KIKS-1 > hr = hit and .2 2 F F HAK h, K, = hn Ks we have to find haw \* PHOK 1-1 K1 = KS 1 7 1 TINE S hi=thr 五五 form And, and, \$ element Thus any 1 3 New Zee

(presed) appears p hims W 7451 A Bhat [G:H]=2. Then prove that H is An) The index of H in a is guen, [a:H]=2 The 6 time for any arbitrary HREHK [H] [K] HUK in the lest, L= ( hik, hek2) - shriss hankay · hard i.e H has two distinct concle of in G. They, Hotel hik, appears p times. (H-15) cepel is H itney. aH = H = Ha USE, S. ANK. 2 Then every element of HK (H)0(H)0 (HK) = (C) HUE the other one a marmed nutgroup of G. عمايل の一年人の事情が開発 AF H that [G:H]=2. - | HK | Hen A PARTIES AND A One Then ConeI

New P must belong to G-H, elve if estite is contralished. Sinc me wanted after for name hie H P=ahIL (G-H) is who a legs caret of Hin G. PEANIE NE (MECH) .. Canidering bath the canes, His a normal Which is a contradiction, nine we have a= hehileH Whee they have a element P= ahi e R-H THE SECTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE Ha = (9-H) consumed a 6 G-H Sintenly we can shaw that (H-15) = H0 > P=ahi PeaH AH=HA the worth Common . Cont II



And According to Cauchy Wheeven, if there a the central goden O(a) and P be the prime during of 9 0(a), then there exists an element of order P. 44 S be a net, S= { 8, 83, ··., 87(=e)}

ents within this net S, identity (3=e exterts.

gf we pick up any two elements and operate them, then remulting elements also lies in the (11) det G be a group of order 28. Stew that G has a non-trivial nubgroup. there, we can nee the He, H3, H4, H3
are different men-trivial rubgroup of S3.
Here to from we can eleanly nee that the
suntern of any two of them one not forming 15m,n <7 8, 8, 83, ..., g7(=e) au ane Let there extrts a element gloud) & G ef or order 7. Have 7/28 and 7 15 a prime. let p= gm and g=gn Group. a magneup. Then, diatinet,

CA 7+120 & D 2 11 A 7- M 11 20 elements arbita 5