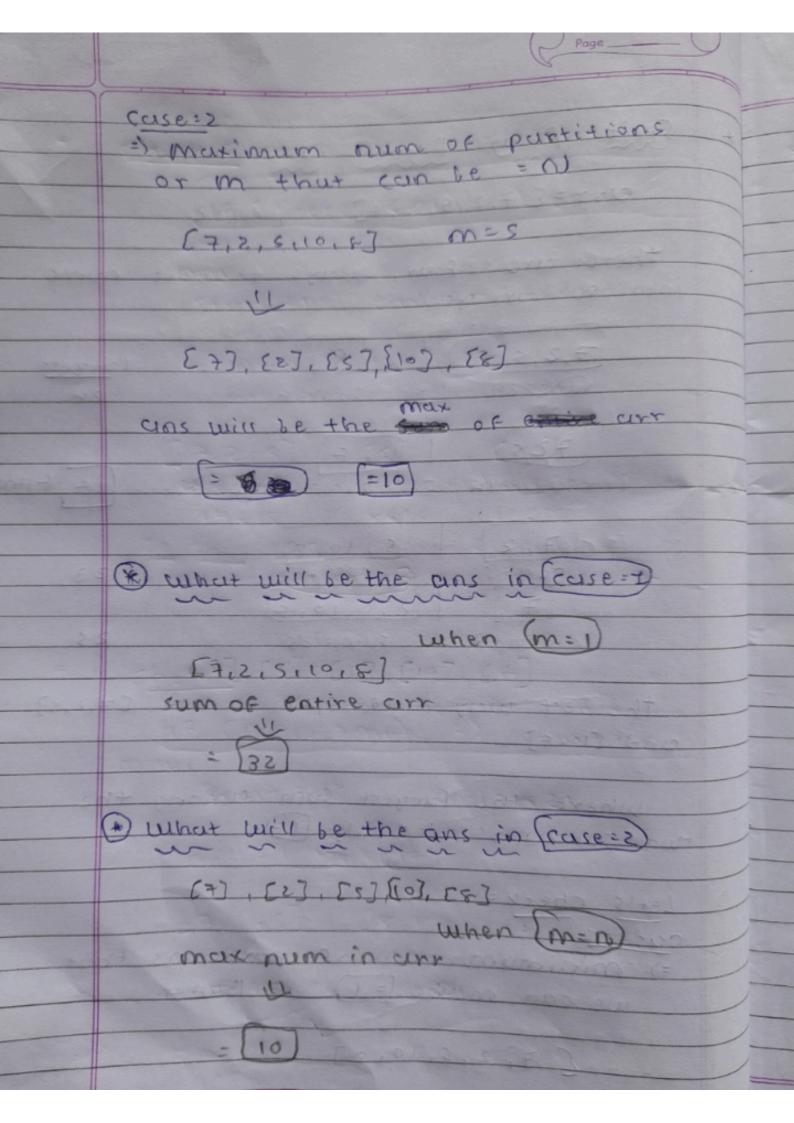
Split Array Largest Sum cirr= { 7,2,9,10, 87 , M=2 there are four ways to split nums into sub arrays. [7,2,5, \$10) | 8)largest sum = zy Sum = F 24 18 FANS sum=14 = | 3um=18 = => 023 25 sum = 7 sum = 25 the best way is to split it into [7,2,5] and [10, 8] where the largest sum among the two subarrays is only (18). =) Let's check: cuse: I =) minimum our of partitions that me can make (= 1) 1 mier [7,2,5,10,2] uns will be the DOWN FULLY STORY sum of entire = 32



So Henser Max value of clas of conestion = case I union value of ans of question = casez max Ans = sum of all value in arr minAns = max value in arr So, now we have lower and upper bound of an unswer. (10,32) in this case Start = minAns = \$10 end = maxAns = 32 So now we can find middle potential answer that can be sprit with m mid = Start + end = 10+32 = 42 (21) we can split are with 21 of max sum. [7,2,5] [8,10]

Pieces = 2

check 1 (if C Pieces (m) =) end = mid now, 15= 6ng , 01= startz mid = 10+21 ((5) [013, [83, [2,5,7] In this case Pieces = 3 Check 2 (if (Pieres >m) =) stort= midtl Nou! Start = 16 end = 521 mid = 16 +21 = (18) 7,2,5], [8,10] (Pieces = 2)

:) start=16 end=18 (FIE) 21431= (217) (F13, [23, -[215, F] leieces = 3) mid: 18+18[:18) so, startiend & mid are same we found our answer (1) Let's Code split Array Cintry arr, int m) { int start = 0;] las int end = 0; (1 Find starting and ending point start = max num in For (int num: arr) & 11 start = Math. max (start, num); Mend = sum of arm end t= num;

11 loop will break when start and end both are educal while (start cend) { int mid = start + c end-start)/2; int sum= 0; int Pieces = 1; // min partition ! . For (int num: arr) { if csum + num 1= mid) { sum += num; It is turn organ than of the new suminum; Pieces++: is(pieces >m) { Start: Midti; 3 9158 £ end:mid; return start;