175918 3 8 11 tossibe si de Jackjo pithmo Analysis -- Confluer: Recursively search I sub-array Assignment: 33 -الامع المحددة وليراهم رشوان محمود المكلى unimodal search (A, low, high) الرقم الأكاديمي: 30000 الرقم الأكاديمي return high: CS. = Kowla Pols: -well ([A [Mid] > A [Mid-1] & & A [Mid] > A [Mid] > A [Mid-1] & & we buy nid: (1-610) A < [617] > A [1013] return unimodal Scorch (A. midth. midd): 92 3 Yeluvy unimodal Scarch (A, inc., raid-1) Amalo de l color colorabe Yugaring tine 17m = TM/2)+ 0(2) - solve it using master method: aged field field from

(wes) 0: (w)

(1) D&C stefs: - Divide on check middle element with its adjacent - Conquer: Recursively search I sub-array - Combine: Trivial >> A War Pseudo : Code: long (incl) as oper land unimodal search (A, low, high) lie is dea : if (low == high) return high; 115-0-· Mid = (low + high/2)? if (A[nid] > A[nid-1] & & A[nid] > A[nid+1]) return mid; if (A[mid] > A[mid-1]) return unimodal Search (A, mid+1, high); else return unimodal Search (A, low, mid-1) Analysis: - calculate running time T(N) = T(N/2)+ O(1) - solve it using master method: $\alpha = 1, b = 2, f(N) = 1$ F(N) 2 N 1 (-) N 1092 1 (-> N° N 1096 = O(fW) # Case(2)

T(N) = 0 (Log(N))

(1)

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2)
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D&C steps:

- Divid: Trivial

- Conquer: Recursively solve 1 part only (with N/2)

- combine: mul the solution of subproblem by itself (and by A if odd)

Prendo Gde:

Power (A, N)

if (N = = 1)

return A;

Pow = Power (A, floor (N/2));

if (N%2 = 0)

return Pow * row * A ;

else

return Pow + Pow }

Analysis;

- calculate running time (securrence relation) T(N) = T(N/2) + O(1)

- solve it using master method

a = 1 b = 2 f(w) = 1

f(N) > N 1092

1 (-> N°

1 (--) 1

N 69,0 = 0 (fw)) # case (2)

T(N) = 0 (Log(N))