30/2 1 st assurption - Areay is sorted int & element 21 While (l < h. It (element = = a[mil]) > brintf ("y.d" in y.d bosikon, _ brintf ("y.d", mid)

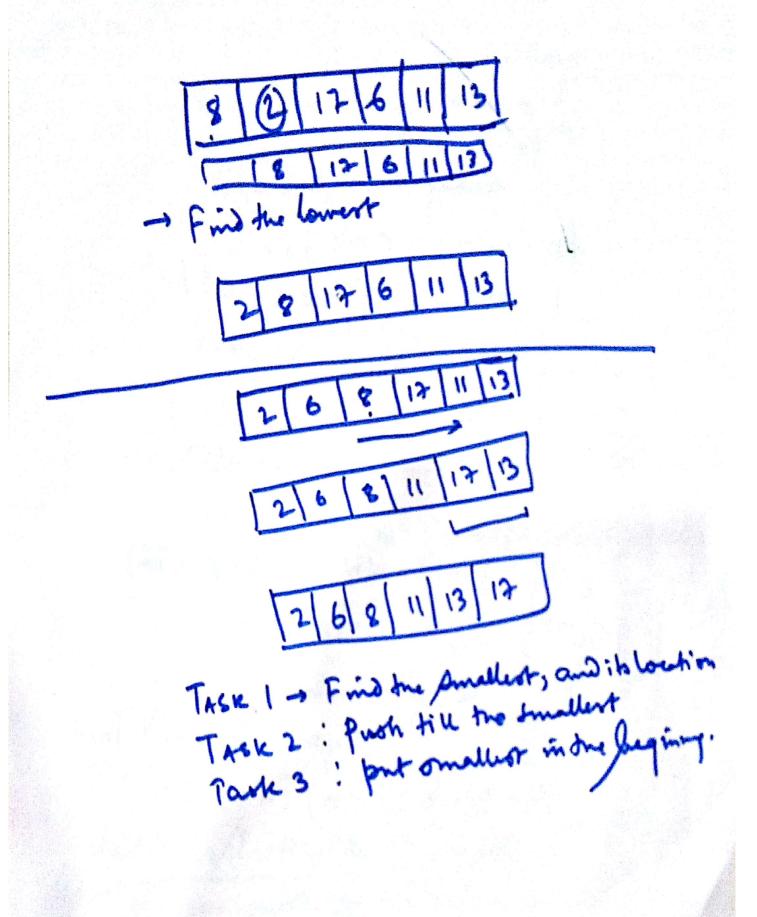
element, mid), seeak; If (element (a[mi])

h = mid-1;

else

l = mid+1; forliso; i(n; iar) if (element=a[.]). bunt ("toma").

The state of the Trys = T(1) = 1



main (). & searly C47.d4 Cm) for lieo; icn; i+th sconf ("Y.d", 12[1]); for (i=0; i < nd; i++ min = a[a]; minl = B;

for (i= et; i < n; i++)

[f[a[i] < min]

[afi]= min = a[i]; minl=i; Czn. [izminl-1; iz=d; izmi] a [i+1]=a[i]; a [o]=min; Tn= En qn+Cz+ Tn-1 for (i=o; i<n; l++). point (12,01, a (:)), CXYFCY GM+C2

$$T_n = G(n+(n-1)-\cdots+1)+C$$

$$= C_1(m(n+1))+C.$$

$$T_n = O(n^2).$$

$$f(x) = g_1x^n + a_1x^{n-1} - \cdots + a_{n+1}$$

$$f(x) = O(x^n).$$
Lordo' Leach = $O(n^2) + O(\log n) \approx O(\log n)$
This can be early = $O(n)$