UTA IO: 1002228309 (N'O + N 20 1 N = = (N)T Ozy Modhemalially derive the average suntenie complainty.

of the non-random pints version of quicksort. For array of size in, remerance setation for T(n) e) T(n) = T(n) + T(n-k-1) + O(n) h- Number of elements in left sub-array O(n)\_ Time partition of array.  $(n) = \frac{1}{N} = \frac{1}{N}$ Vow, Sine left & right part follow symmetry =) T(n) = 2 = T(n) + 0 (n) det 1, assume S(y) = E T(y)  $S(\eta) = \int \frac{m \cdot \log \eta}{n \cdot \log \eta} \cdot d\eta = \frac{n^2 \log n}{n} - \frac{n^2}{n}$ n² hg n

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policies graph on the interior Possisson oratu 1 100 = NovoH -: T(n) = 2 · n² lip n + o(n) Inly h + 0 (n) (m) & + (1-x-x-1) + 8(m) pure fire that in strends you colored - it i pero 10 investiling invit - (N) 0 (N) O+ (LV-N) T + (N) T = 1, =(N) T (S otampre welled tren today of the ins well (4) 6 + (N) 7 = 2 = (N) T (a) (1) The assume 5(N) = = (T(N))