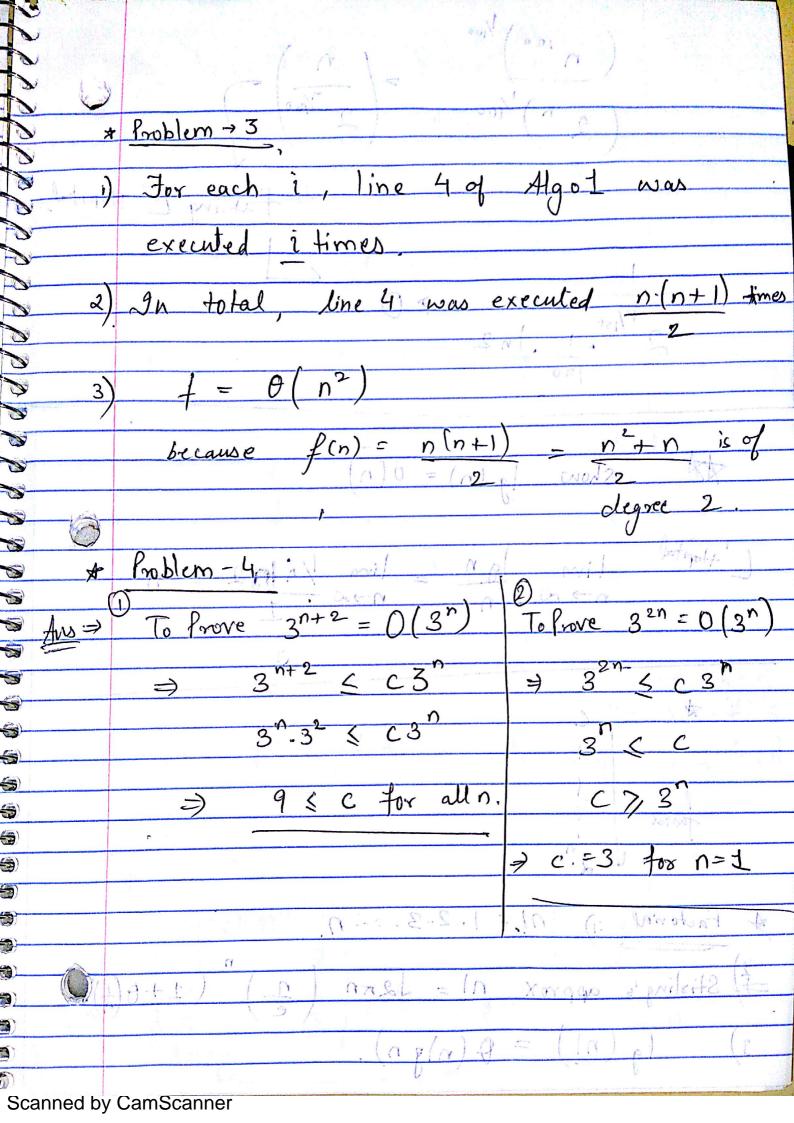


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05 $g_1 = \Re(g_2) \Rightarrow g_1 \neq g_2(n) = g_1$ $(n+1)! / n! / 2^{2^n} > n \cdot 2^n > e^n > 2^{n/3}! / 4!8n$ $\frac{2^{19n}}{2^{19n}} > (2)^{19n} > n^3 > n^2 > n | gn >$ 19(n!) 1> n)192n 1919n > mn > 0 $\Theta(n|gn) = \log(n!)$ Pairs 1 (2,3) and (3,4) are the inversions of A The array (n, n-1, ..., 2, 1) from sol 27, 2, 3. --, n & will have the most inversions Itill have (n-1)n inversions => 0(n2) Both the running time of Insertion Sort and no of inversions are $O(n^2)$ from b

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