17-1000 - 1000 -
1 21 Has following statements are correct :
) Show trea - Vac July 5n2 for 5n2 => n/O.
a) 5n-01-001/2 and n/10. Either n/10 and n/10
5n-6n/1411 7 000 nx10 pna nx10
i. N/6. Jacant narrell.
Show that the following statements are correct: a) $5n^2-6n=\theta(n^2)$. $5n^2-6n<5n^2\Rightarrow n>0$. $5n^2-6n>1, 4n^2\Rightarrow (6n-6)>0$. Either $n>0$ and $n>6$ $5n^2-6n>1, 4n^2\Rightarrow (6n-6)>0$. Either $n>0$ and $n>6$ or, $[n=6]$ when $n>6$ $[-6, 5n^2-6n=0]$ $[-6, 5n^2-6n=0]$
$C_1=4$ $C_2=5$ $n_0=6$ [$\frac{1}{2}$
G=4 $G=5$ $ho=0$ $f=0$
h) n= O(n). let, n/1. We was 1/2 1/2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /
b) $n! = O(n^n)$. Let, $n!/1$. We know $n!/(n-1)!/(n-2)!/(n-2)!/(n-1)!/(n^n)$. $1!/(n-1)!/(n-2)!/(n-1)!/(n$
n = n = n = n
c = 1, $c = 1$ $c =$
and let, 22 nlogn of on Jon In
c) 2nd night = Var
or, n/n-logn//0. of
c) 2nthlogn= P(nt) Let, 2nthlogn & 3nthold. i. (nthlogn) (2nthlogn) (2nthlogn
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Proof: The proof is by mathematical. Proof: The proof is by mathemati
$\frac{1}{100} \frac{1}{100} \frac{1}$
Base case: h=0. Z I.H.: Let, for some n=K, 2K/K. [I.H.: Let, for some n=K, 2K/K. 2KH= 2.2K/, 2K (By I.H.) - K+K/, K+1
= K+K// K+1
T.H.: Let, for some n=K, 2K/K. Thurtien Step: On=K+1. 2K+1 = 2.2K/, 2K (By I.H.) Transfer Step: On=K+1.
i. $\forall n \in \mathbb{N}$, $2^n/n$ [] Let, $2n \notin n \log n / 2n \notin n \log n / 0 \Rightarrow n \notin 0$ and $\log n / 0 \Rightarrow or [n \notin n]$ Let, $2n \notin n \log n / 2n \notin n \log n / 3n^2$ for $n \notin n$
0.2 > nlan/0 => n/0 and ~0
Let, $2n+n\log n/2nt \Rightarrow n\log n/2n^2$ for $n/1$ $2n^2 \langle 2n+n\log n \langle 3n^2 \rangle $ for $n/1$ $q=2, q=3, no=1 $ $\boxed{:.2n+n\log n=0 }$
$\frac{2n^{2}}{2n^{2}} \frac{2n^{2}}{2n^{2}} \frac{2n^{2}}{$
a=2, c2=3, no=1 [Intingio