Clusters.Top Students Association

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Question:

Find the particular solution for the following recurrence with the given initial values!
Also give the asymptotic upper bound ($O()$). Show all your work!

t(n) = t(n-2) + n , t(0) = t(1) = 0;

Answer:

Answer :

```
t(n)
= t(n-2) + n
= t(n-4) + (n-2) + n
= 0 + 2 + 4 + ... + (n-2) + n
<= n + n + ... + n (n/2 terms)
= n(n/2) = n^2/2
<= cn^2
= O(n^2)

Answer: O(n^2)
```