Here is an argument to “prove” that in any group of people, all the people are the same age. The “proof” is by induction on the size of groups. The induction base is that in any group of size 1, all the people are the same age. Or we could equally well use groups of size 0 as the induction base. The induction hypothesis is to assume that in any group of size \( n \), all the people are the same age. Now consider a group of size \( n+1 \). Let its people be \( p_0, p_1, ..., p_n \). By the induction hypothesis, in the subgroup \( p_0, p_1, ..., p_{n-1} \) of size \( n \), all the people are the same age; to be specific, they are all the same age as \( p_1 \). And in the subgroup \( p_1, p_2, ..., p_n \) of size \( n \), all the people are the same age; again, they are the same age as \( p_1 \). Hence all \( n+1 \) people are the same age. Formalize this argument and find the flaw.