This chapter established the set theory of hoshino version.

Definition -2.1 (Minimum)**.** *Let S a set and $n \in S$, n is minimum if for any $m \in S$, $n \leq m$.*

Theorem -2.1. *Let S be a non-empty set which consists of natural number, show that there is $n \in S$ such that n is minimum.*

Proof. Suppose there no such $n \in S$ where n is minimum, then for any $n \in S$, n is not minimum, then for any $n \in S$, there is $m \in S$ such that $n > m$. Therefore, for any $n \in S$, we can obtain a smaller element m.

Let $n \in S$, then we can get a smaller element m, and do the same thing on m. We will finally reach $0 \in S$, nut here is no any natural number that smaller than 0, but we can still obtain a m such that $m < 0$, this is unacceptible.

So S has a smallest element. $\square$