Theorem 3.180. *[244] $\mathbb{N}$ is the smallest S-saturated set.*

Proof. Given a set A that is S-saturated, $\mathbb{N}_A$ is defined as the intersection of all S-saturated subsets of A. By [245], $\mathbb{N}_A$ is S-saturated. Given two sets A, B that are S-saturated, it is proven that $\mathbb{N}_A = \mathbb{N}_B$: we denote then by $\mathbb{N}$ this set. In particular, given a set A that is S-saturated, we have $\mathbb{N} \subseteq A$. □