

This note, that [was found here](#), as a part of [a collection](#) is written (completely with human hands) by [Rupadarshi Ray](#), was created on September 2, 2026 7:16:15 PM, was last modified on September 2, 2026 7:19:50 PM, and was exported on September 7, 2026 3:04:01 PM.

$\lim S_n$

The direct limit of the diagram

$$S_2 \rightarrow S_3 \rightarrow \cdots \rightarrow S_{n-1} \rightarrow S_n \rightarrow \cdots$$

is the group $\lim S_n$.

It is isomorphic to the subgruoup of $\text{AutSet}(\mathbb{N})$ contisting of bijections which is identity outside a finite set.

Current note has 0 direct children and 0 total descendants.

- [stretchy](#)
 - [Symmetric group](#)
 - $\lim S_n$

And it has 5 siblings.

- [stretchy](#)
 - [Symmetric group](#)
 - S_3
 - S_4
 - S_5
 - S_n
 - $\lim S_n$