Exercises

3.219 [080] *(Solved on 2023-01-17)* If $S \subseteq X$ is an initial segment and $S \neq X$, show that $s \in X \setminus S$ exists and is unique (s is called *the next item* to S) which extends S, *i.e.* such that $S \cup \{s\}$ is an initial segment.

Solution 1. *[081]*

(Note that there are similarities with the concept of "successor" seen in [1ZO]... We could say that s is the successor of the segment S).