Exercises

E3.h.6 [239] Prerequisites: [01R], [(3.171)], [24V]. Let x, y be elements (generic, not necessarily natural numbers), such that

$$x \subseteq y \subseteq S(x) \tag{3.h.7}$$

prove that

$$x = y \vee y = S(x) \quad ;$$

where the above two are mutually exclusive, and (in the hypothesis (3.h.7) above) the second one holds if and only if $x \in y$; summarizing

$$(3.h.7) \Rightarrow (x = y \iff y \neq S(x) \iff x \notin y) \quad .$$

Note the analogy with [22H].