

es-before^{0,22}

$\text{before}(e) \equiv_{\text{def}} \text{if first}(e) \rightarrow \text{nil else before}(\text{pred}(e)) \text{ @ } [\text{pred}(e)] \text{ fi } (\text{recursive})$

clarification:

$\text{es-before}(es; e)$
 $\equiv_{\text{def}} \text{if es-first}(es; e) \rightarrow \text{nil else es-before}(es; \text{es-pred}(es; e)) \text{ @ } (\text{es-pred}(es; e).\text{nil}) \text{ fi}$
(*recursive*)