The specification

\texttt{var x: nat \ x:= -1}

introduces a local variable and then assigns it a value that is out of bounds. Is this specification implementable? (Proof required.)

§ Let the nonlocal variables be \( \sigma \).

\texttt{var x: nat \ x:= -1}

\( \equiv \exists x, x': \text{nat} \ x'=-1 \land \sigma'=\sigma \) \hspace{1cm} \text{local axiom} \ x': \text{nat} \ conflicts \ with \ x'=-1

\( \equiv \bot \)

so it is unimplementable.