Can we prove the refinement

\[ P \iff t := t + 1. \ P \]

for \( P = t' = 5 \)? Does this mean that execution will terminate at time 5? What is wrong?

§ Yes, we can prove it.

\[
t := t + 1. \ t' = 5 \quad \text{use Substitution Law}
\]

\[ t' = 5 \]

Yes, it means that execution will terminate at time 5. What's wrong is this specification is unimplementable. What if the computation starts at time 6?

\[
\forall \sigma \cdot \exists \sigma' \cdot t' = 5 \land t' \geq t
\]

specialize to \( t = 6 \)

\[ \Rightarrow \exists \sigma' \cdot t' = 5 \land t' \geq 6
\]

\[ = \bot \]