Write a program to repeatedly print the current time, up until some given time.

Assuming time is an extended integer, and the given time is \( k \), including recursive time, the specification is

\[
P = \mathbf{w}' = \mathbf{w} + 0^{\uparrow}(k-t) \land t' = t + 0^{\uparrow}(k-t) \\
\land \forall n: 0,..0^{\uparrow}(k-t) \quad \mathcal{M}_{\mathbf{w}+n} = \mathcal{T}_{\mathbf{w}+n} = t+n
\]

and the refinement is

\[
P \iff \text{if} \ t < k \ \text{then} \ c! \ t. \ t := t+1. \ P \ \text{else} \ \text{ok} \ \text{fi}
\]