The equation

\[
time = \text{screen}! \ t. \ t := t + 1. \ time
\]
outputs the time \( t \) onto the \( \text{screen} \) channel once each time unit forever. Considering \( time \) as the unknown,

(a) what is the weakest solution to this equation? (No proof required.)

§ Removing the output and assignment notations,

\[
time = M_w = T_w = t \land w' = w + 1 \land r' = r \land t' = t + 1. \ time
\]

Now we can use recursive construction starting with \( \top \).

\[
time_n = \forall i: 0..n. M_{w+i} = T_{w+i} = t + i
\]

\[
time_\infty = \forall i: \text{nat}. M_{w+i} = T_{w+i} = t + i
\]

This is the weakest solution (weakest fixed-point).

(b) what is the strongest solution to this equation? (No proof required.)

§ If we start with \( \bot \), then

\[
time_n = time_\infty = \bot
\]

This is the strongest solution (strongest fixed-point).