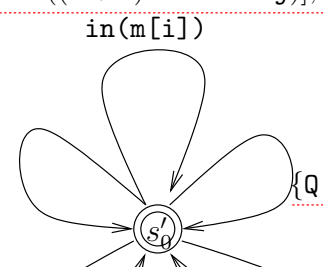
vars:
m: int[**0 . . . N**]
i,j:=–1

$\{\texttt{P} \mapsto \texttt{p-send(x)}\}$, $[(\neg(\texttt{i} = -1 \wedge \texttt{j} = -1) \wedge \neg((\texttt{i}+1) \mod \texttt{N} = \texttt{j})]$, $(\texttt{m[i]} \leftarrow \texttt{x}; \texttt{i} \leftarrow (\texttt{i}+1) \mod \texttt{N})$

in(m[i])

$\{\texttt{P} \mapsto \texttt{p-send(x)}\}$, $[\texttt{i} = -1 \wedge \texttt{j} = -1]$, $(\texttt{m[i]} \leftarrow \texttt{x}; \texttt{i,j} \leftarrow 0)$

in(m[i])



$\{\texttt{Q} \mapsto \texttt{q-recv(x)}\}, [\texttt{i} \neq \texttt{j}]$, $(\texttt{x} \leftarrow \texttt{m[j]}; \texttt{j} \leftarrow (\texttt{j}+1) \mod \texttt{N})$

out(x)

$\{\texttt{Q} \mapsto \texttt{q-print}\}$, $True$, $()$

print

$\{\texttt{Q} \mapsto \texttt{q-recv(x)}\}, [(\texttt{i} = \texttt{j}) \wedge (\texttt{j} \neq -1)]$, $(\texttt{x} \leftarrow \texttt{m[j]}; \texttt{i,j} \leftarrow -1)$

out(x)