

A machine

as step 1. wrote out the states

— $Q_1 \times Q_2$ — got that

step 2: walk through the states

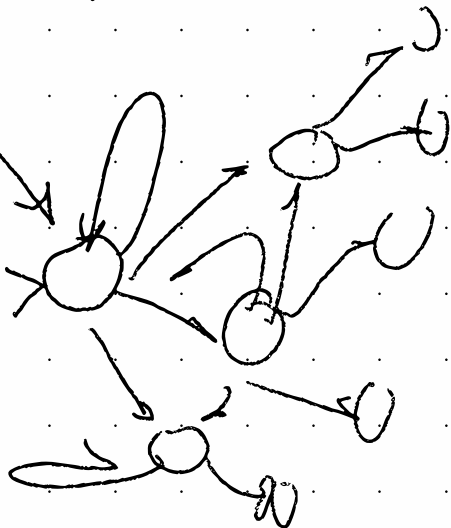
$|Q| = |Q_1| \cdot |Q_2|$ quadratic

Determine

$$Q^* = \text{Prun}(\emptyset)$$

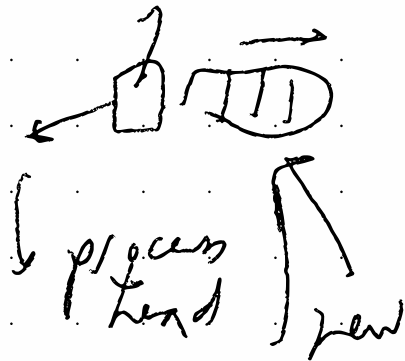
$$|Q^*| = 2 \quad |Q|$$

builds
this



Large

s.s



also not-regular

$$\left\{ s \in \{0,1\}^* \mid \# \text{ of } 0's = \# \text{ of } 1's \right\}$$

this is also non-regular

$$\begin{array}{ccccccc} & & & .4 & & & \\ & & & \boxed{0} & & & \\ 0 & 1 & 0 & 0 & 1 & 0 & 0 & 1 & 1 \\ \hline & & & \gamma & & & & \gamma & \end{array}$$