09/19/18

$$R'_{f,f} = R_{f,f} \cup (R_{f,st} \cdot R_{st,st}^{*} R_{st,f})$$

$$R'_{f,f} = \emptyset \cup (\emptyset \cdots) \qquad \boxed{\emptyset A = \emptyset}$$

$$\boxed{\emptyset \cup A = A}$$

$$R'_{f,i} = R_{f,i} \cup (R_{f,st} R_{st,st}^{*} R_{st,i})$$
$$\emptyset$$

$$R'_{f,nf} = R_{f,nf} \cup (R_{f,st} R_{st,st}^{*} R_{st,nf})$$
$$\wedge \quad \cup \quad \emptyset$$

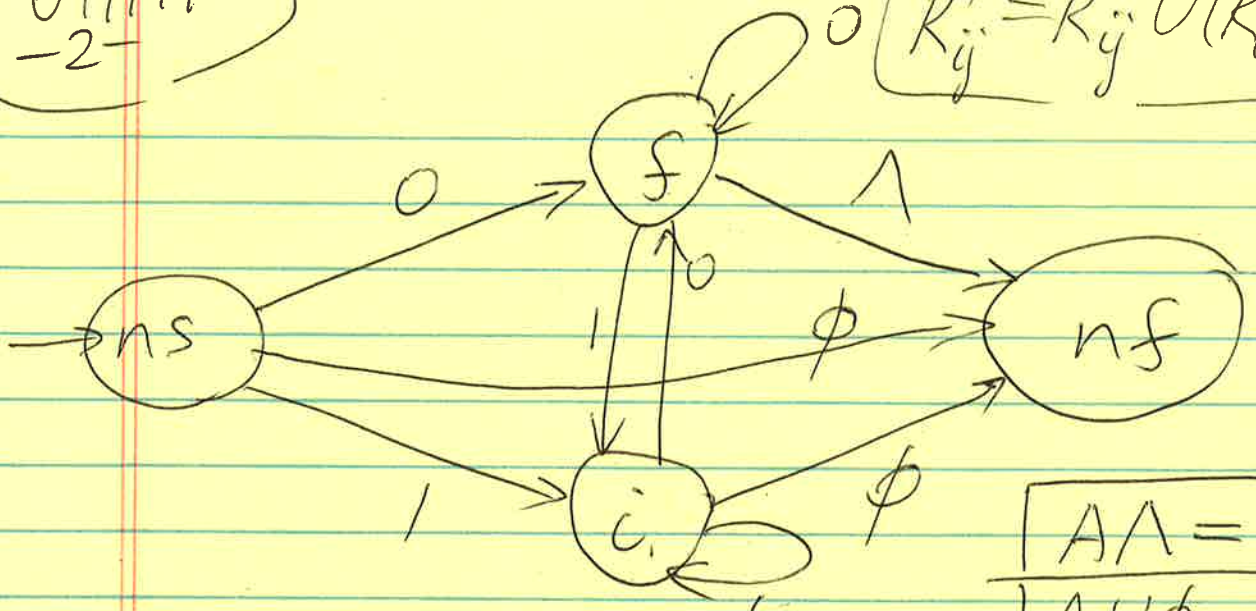
$$R'_{i,f} = R_{i,f} \cup (R_{i,st} R_{st,st}^{*} R_{st,f})$$
$$0 \qquad \emptyset \cdots$$

$$R'_{i,i} = R_{i,i} \cup (R_{i,st} R_{st,st}^{*} R_{st,i})$$
$$1 \qquad \emptyset$$

$$R'_{i,nf} = R_{i,nf} \cup (R_{i,st} \cdots)$$
$$\emptyset \qquad \emptyset$$

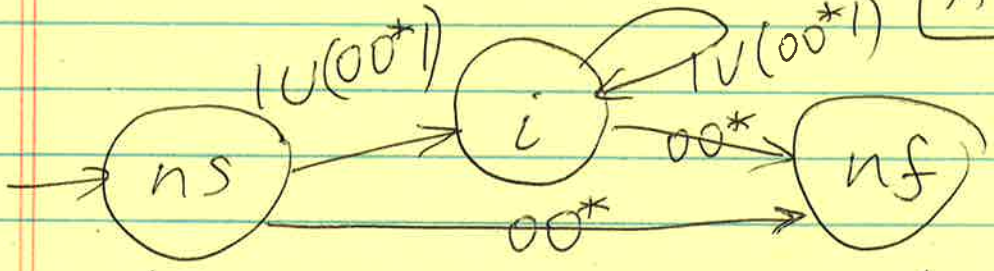
09/19/18
-2-

$R'_{ij} = R_{ij} \cup (R_{ik} R_{kk}^{*} R_{kj})$



$A\Lambda = A$

$A \cup \phi = A$



$R'_{ns,i} = R_{ns,i} \cup (R_{ns,f} R_{f,f}^{*} R_{f,i})$

$1 \cup (0\,0^{*}1)$

$R'_{ns,nf} = R_{ns,nf} \cup (R_{ns,f} R_{f,f}^{*} R_{f,nf})$

$\phi \cup (0\;\; 0^{*}\;\; \Lambda) = 00^{*}$

09/19/18
-3-

$$R'_{ii} = R_{ii} \cup (R_{if} R_{ff}^* R_{f,i})$$

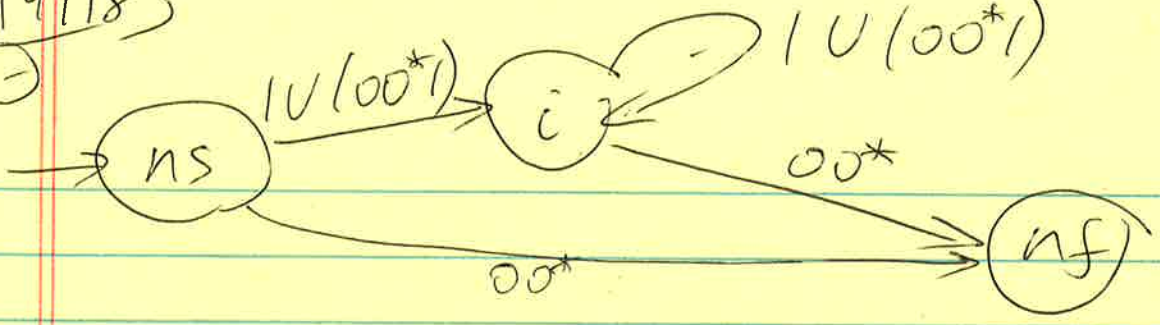
$$1 \cup (0\ 0^*\ 1)$$

$$R'_{i,nf} = R_{i,nf} \cup (R_{if} R_{ff}^* R_{f,nf})$$

$$\emptyset \cup (0\ 0^*\ \wedge) = 00^*$$

09/19/18

-4-



$$R'_{ns,\,nf} = R_{ns,\,nf} \cup (R_{ns,\,i}\, R_{i,i}^{*}\, R_{i,\,nf})$$

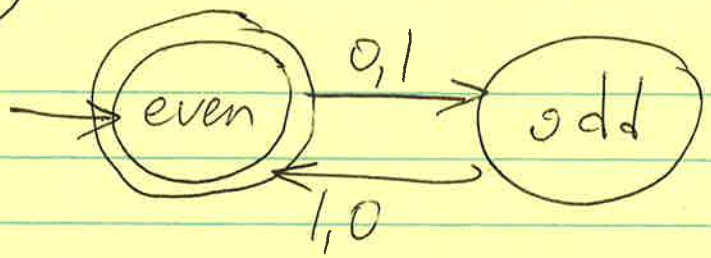
$$00^* \cup ((1 \cup (00^*1))(1 \cup (00^*1))^* 00^*)$$

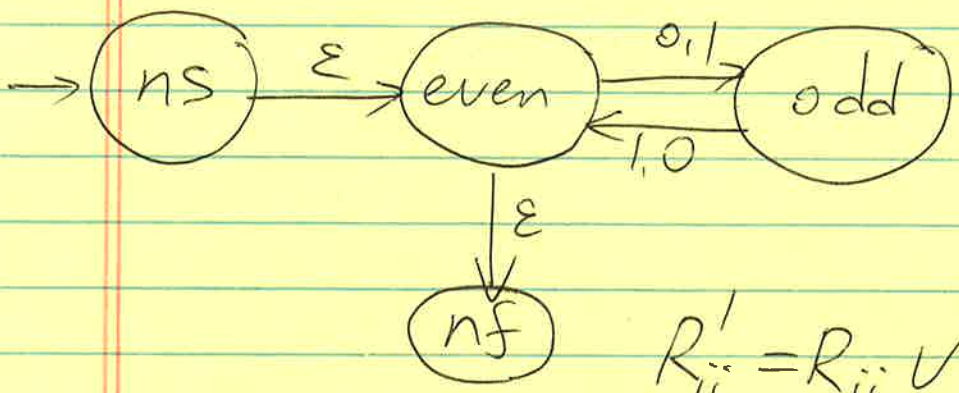
$$1 \quad 1 \quad 0$$

$$1 \cup 00^*1 \equiv 0^*1$$

$$(0 \cup 1)^* 0$$

09/19/18
-5-





1) eliminate odd

2) elim. even

$$R'_{ij} = R_{ij} \cup (R_{ik} R_{kk}^{*} R_{kj})$$

$$R_{even,\,odd} = 0 \cup 1$$