

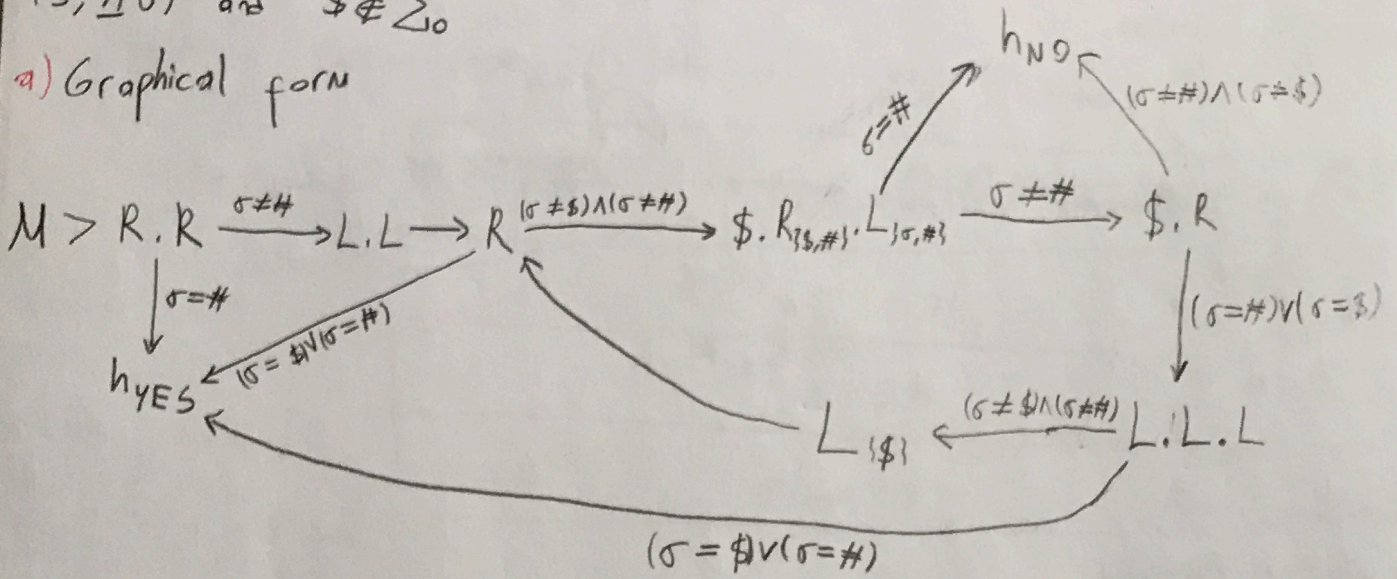
Homework #8

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$$1) L = \{u \in \Sigma_0^* \mid u = u^R\}$$

$(s, \#u)$ and $\$ \notin \Sigma_0$

a) Graphical form



b) Tabular form

TM	Condition	Next TM
$A = R.R$	$\sigma \neq \#$	$L.L.B$
	$\sigma = \#$	h_{YES}
$B = R$	$(\sigma \neq \$) \wedge (\sigma \neq \#)$	$$.R_{\{s, \#\}}.C$
	$(\sigma = \$) \vee (\sigma = \#)$	h_{YES}
$C = L_{\{s, \#\}}$	$\sigma \neq \#$	$$.D$
	$\sigma = \#$	h_{NO}
$D = R$	$(\sigma \neq \$) \wedge (\sigma \neq \#)$	h_{NO}
	$(\sigma = \$) \vee (\sigma = \#)$	$L.L.E$
$E = L$	$(\sigma \neq \$) \wedge (\sigma \neq \#)$	L.B$
	$(\sigma = \$) \vee (\sigma = \#)$	h_{YES}