$a^m b^m c^m$

$q_0 aaa\ bbb\ ccc$

$x q_1 aa\ bbb\ ccc$

$x a q_1 a\ bbb\ ccc$

$x a a q_2 bbb\ ccc$

$x a a y q_2 bb\ ccc$

$x a a y b q_2 b\ ccc$

$x a a y b b q_3\ ccc$

$x a a y b b z q_3\ cc$

$x a a y b b z c q_3\ c$

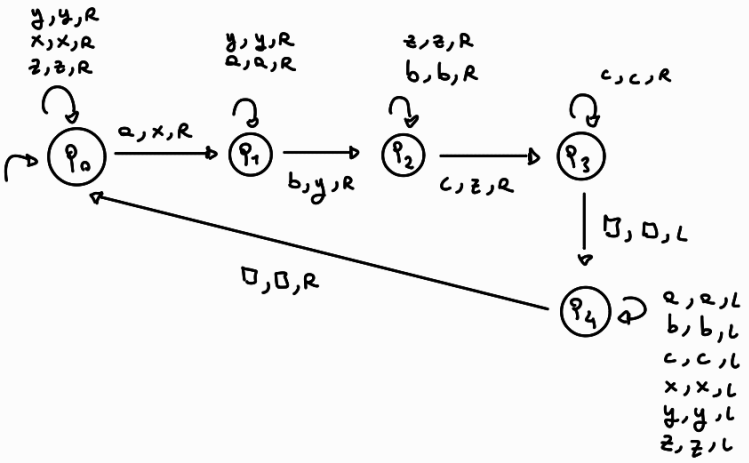
$x a a y b b z c c q_3 \sqcup$

. . . . . .

$q_0 \sqcup x a a y b b z c c \sqcup$

$q_0 x a a y b b z c c$

$x x q_1 a y b b z c c$



$\{w \in \{0,1\}^* : \#_w(1) = \#_w(0)\}$

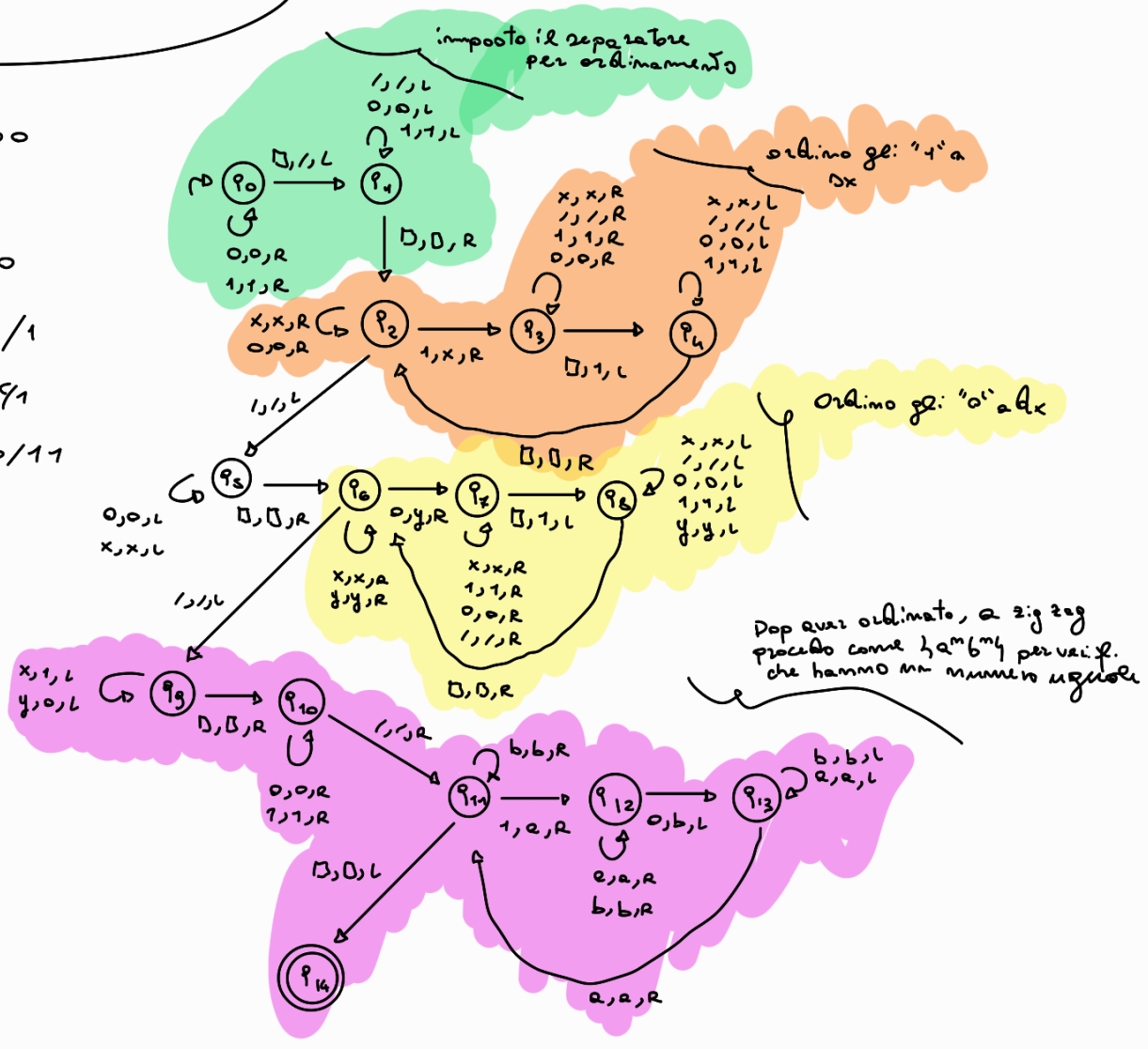
$q_0 101100$

101100

$X01100/1$

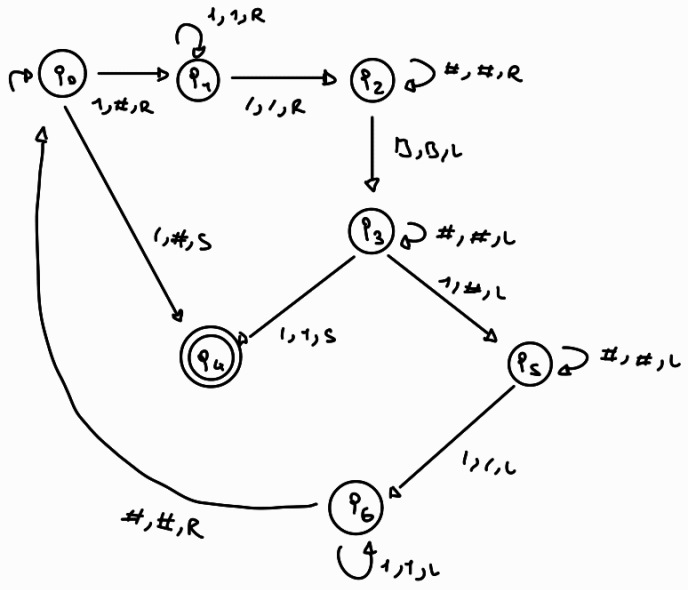
$X01100\%1$

$\sqcup X0X100/11$



$f(x,y) = |x-y|$

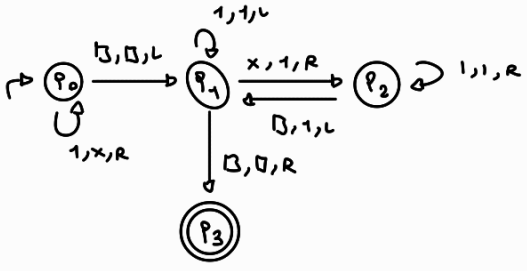
Associa copiatrice !! prima di q_0



di giammarco

associa copiatrice prima di q_0 vai sotto !!!

$f(x) = 2x$



$L = \{a^m b^m : m > 0\}$

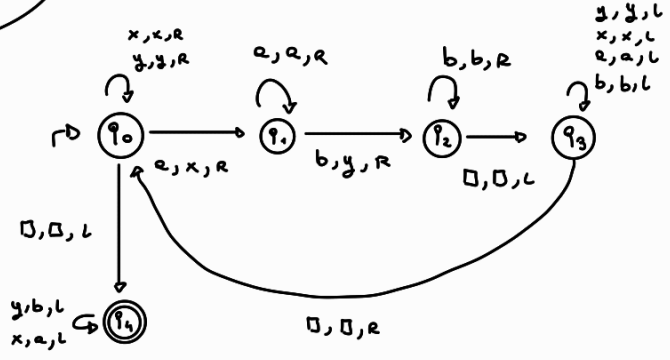
B q_0 a a a b b b B

B x q_1 a a b b b B

B x a q_1 a b b b B

B x a a q_1 b b b B

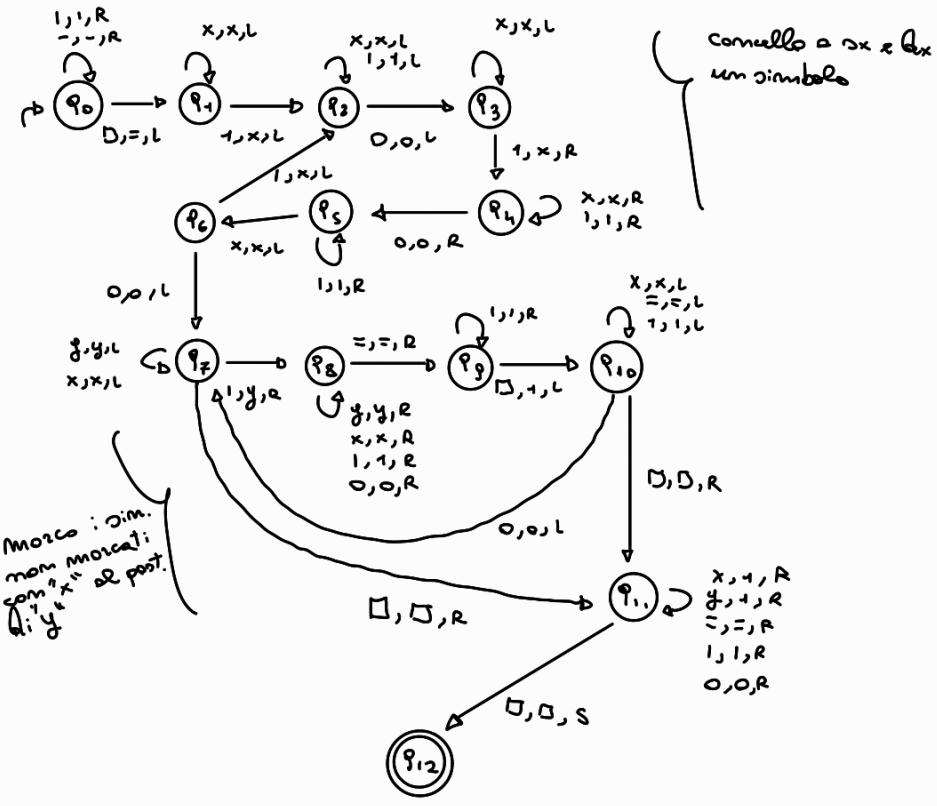
B x a a y b b B



$f(x,y) = x - y$

1 1 1 −

1 1



111 − 11
↑

111 − 11
↑

111 − 11
↑

111 − 11
↑

111 − 11 □
↑

111 − 11 □
↑

111 − 11 =
↑

111 − 11 =
↑

111 − 11 =
↑

111 − 11 =
↑

111 − X1 =
↑

111 − X1 =
↑

111 − X1 =
↑

111 − X1 =
↑

□111 − X1 =
↑

111 − X1 =
↑

X11 − X1 =
↑

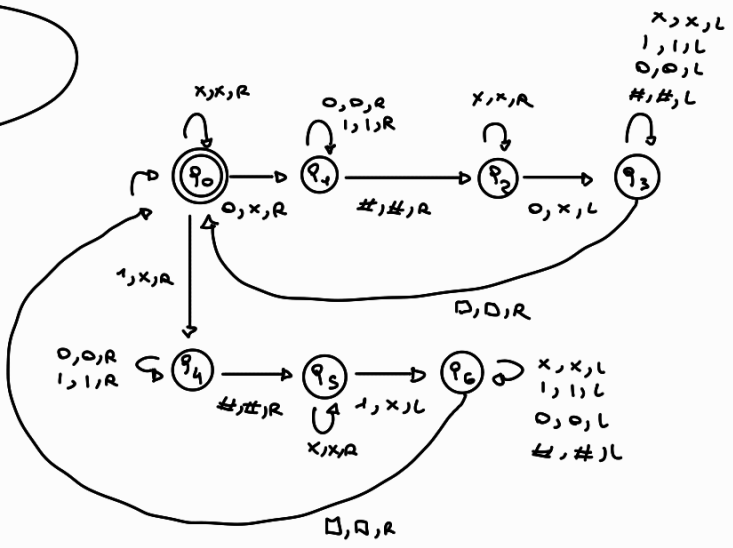
X11 − X1 =
↑

X11 − X1 =
↑

X11 − XX =
↑

X11 − XX =
↑

$L = \{ w\#w : w \in \{0,1\}^* \}$



$q_0\,0\,1\,0\,\#\,0\,1\,0$

$X\,q_1\,1\,0\,\#\,0\,1\,0$

$X\,1\,q_1\,0\,\#\,0\,1\,0$

$X\,1\,0\,q_2\,\#\,0\,1\,0$

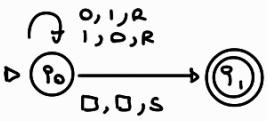
$X\,1\,0\,q_3\,\#\,X\,1\,0$

$X\,1\,q_2\,0\,\#\,X\,1\,0$

$X\,q_3\,1\,0\,\#\,X\,1\,0$

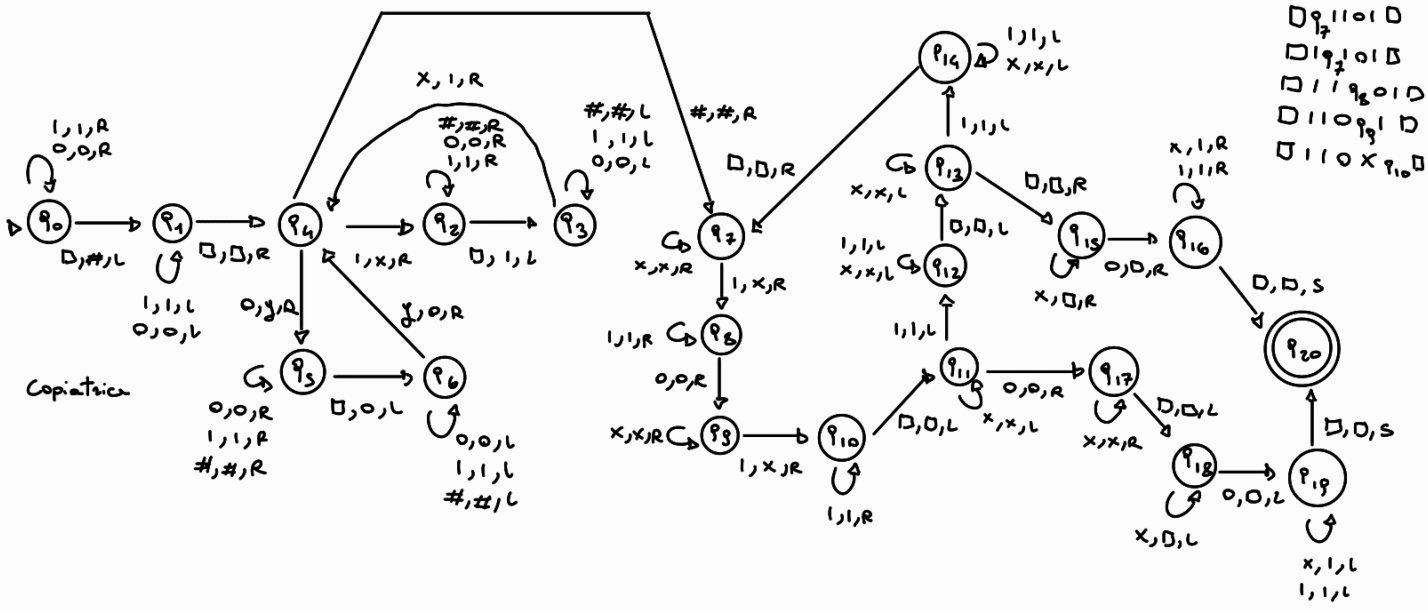
$q_3\,X\,1\,0\,\#\,X\,1\,0$

$L = \{ w \in \{0,1\}^* :$ inverti le cifre: 0 con 1 e viceversa $\}$

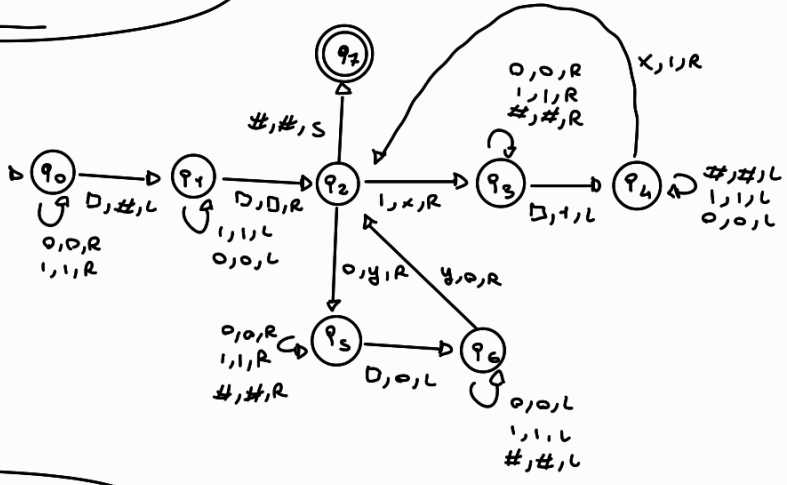


$f(x,y) = \max\{x,y\}$

Idea: Tolgo un simbolo al primo x e uno al secondo y finché non termina uno dei due termini.

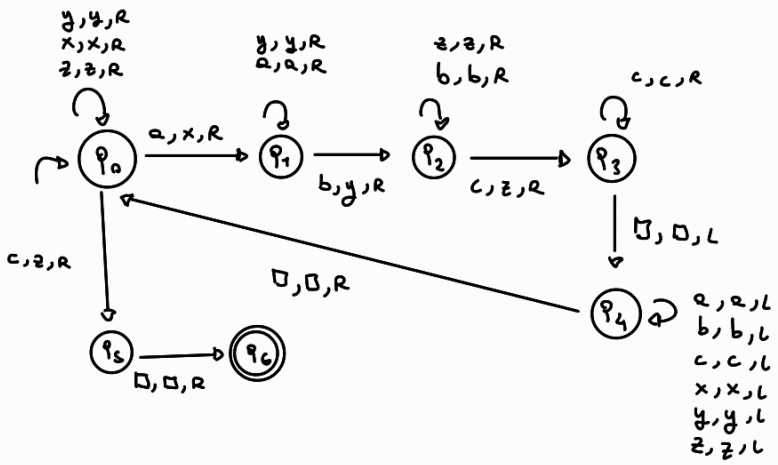


Copiatrice unaria / Binaria



$L = \{ a^m b^m c^{m+1} : m > 0 \}$

aabbccc



$f(x,y) = \min\{x,y\}$ Fox!

$f(x,y) = x \cdot y$