?

RE
$REFA$
$DFARE$
RE
$REDFA$
$REDFA$
Σ
$\emptyset\Sigma RE\emptyset$
$\epsilon\Sigma RE\{\epsilon\}$
$\forall a \in$
$\Sigma, a\Sigma RE\{a\}$
$r, s\Sigma R, SRE$
$r, s(r+$
$s)\Sigma RE, (r+$
$s)R\cup$
S
$r, s(rs)\Sigma RE, (rs)RS$
$r(r^*)\Sigma RE, (r^*)R^*$
ΣRE
$\Sigma =$
$\{0, 1\}$
$0\{0\}$
$1\{1\}$
$(0+$
$1)\{0, 1\}$
$(01)\{01\}$
$(0+$
$1)^*\{0, 1\}^*$
$(00)(00)^*\{00\}\{00\}^*$
$(0+$
$1)^*(0+$
$1)(0+$
$1)^*\{0, 1\}^+$
$(0+$
$1)^*000(0+$
$1)^*\{0, 1\}0$
$(0+$
$1)^*01010, 1$
$1(0+$
$1)^*0100, 1$
$rr^+r(r^*)(r^*)r$

$$r^+ = rr^* = r^*r$$

"+
$RErL(r)r$
$r, s\Sigma L(r) =$
$L(s)rs$ *(equivalence,)*
$(rs)t =$
$r(st)$
$(r+$
$s)+$
$t =$
$r+$
$(s+$
$t)$
$r(s+$
$t) =$
$rs+$
rt
$(s+$
$t)r =$
$sr+$
tr
$r+$
$s =$
$s+$
r
$r+$
$r =$
r
$r+$
$\emptyset =$
r
$r\epsilon \equiv$
ϵr
r
$r\emptyset =$
$\emptyset r =$
$\emptyset$
$L(\emptyset) =$
$\emptyset$
$L(\epsilon) =$
$\{\epsilon\}$
$L(a) =$
$\{a\}, a \in$
Σ
$L(rs) =$
$L(r)L(s)$