
Identidades

$$1) \emptyset w = w \emptyset = \emptyset$$

$$2) \lambda w = w \lambda = w$$

$$3) \emptyset^* = \lambda$$

$$4) \lambda^* = \lambda$$

$$5) w \cup y = y \cup w$$

$$6) w \cup \emptyset = w$$

$$7) w \cup w = w$$

$$8) w^*w^* = w^*$$

$$9) (w^*)^* = w^*$$

$$10) w^*w = ww^* = w^+$$

Identidades

$$11) w(x \cup y) = wx \cup wy$$

$$12) (x \cup y)w = xw \cup yw$$

$$13) (wy)^* w = w(yw)^*$$

$$\begin{aligned}14) (w \cup y)^* &= (w^* \cup y)^* \\&= w^*(w \cup y)^* \\&= (w \cup yw^*)^* \\&= (w^* y^*)^* \\&= w^*(yw^*)^* \\&= (w^* y)^* w^*\end{aligned}$$