$Q = \mathcal{T}(P)$, unde $P := \mathcal{R}(\mathcal{S}(R)) \subseteq A^2$

↓

tranz (2)

$$Q^{-1} = \left(\bigcup_{n\geq 1}^{\infty} (\Delta_A \cup R \cup R^{-1})^n\right)^{-1} = \bigcup_{n=1}^{\infty} \left((\Delta_A \cup R \cup R^{-1})^n\right)^{-1} =$$

$$= \bigcup_{n\geq 1}^{\infty} \left((\Delta_A \cup R \cup R^{-1})^{-1}\right)^n = \bigcup_{n\geq 1}^{\infty} (\underbrace{\Delta_A^{-1}}_{\Delta_A} \cup R^{-1} \cup (R^{-1})^{-1})^n = Q = Q \to \text{sim } (3)$$

(1), (2) (3) $\Rightarrow$ $Q \in Echiv(A)$ (***)

(*), (**), (***) $\Rightarrow$ $E(R) = Q$

Preordine $\rightarrow$ rel reflexivă și tranzitivă

$\Rightarrow$ incluziunile comută

- U comp cu $U \subseteq U$
- $A = \emptyset$; $A \neq \emptyset$ $x, y, z \in A$

$(\underbrace{x, y}_{R^k})$ și $(\underbrace{y, z}_{R^l}) \in U \Rightarrow (x, z) \in U$

$R^k \circ R^l = R^{k+l}$