

Reflexive closure

(反身包)

假設 $A = \{1, 2, 3\}$

$$R = \{(1, 1), (2, 2), (1, 2), (2, 3)\}$$

$$r(R) = R \cup R^0$$

$$= \{(1, 1), (2, 2), (1, 2), (2, 3)\} \cup \{(1, 1), (2, 2), (3, 3)\}$$

$$= \{(1, 1), (2, 2), (3, 3), (1, 2), (2, 3)\}$$

Symmetric closure

(對稱包)

$$S(R) = R \cup R^{-1} = \{(1, 1), (2, 2), (1, 2), (2, 3)\} \cup \{(1, 1), (2, 2), (2, 1), (3, 2)\}$$

$$= \{(1, 1), (2, 2), (1, 2), (2, 1), (2, 3), (3, 2)\}$$