

Reflectivity $\beta \subseteq \alpha \implies \alpha \rightarrow \beta$

Augmentation $\alpha \rightarrow \beta \implies \gamma\alpha \rightarrow \gamma\beta$

Transitivity $\alpha \rightarrow \beta \wedge \beta \rightarrow \gamma \implies \alpha \rightarrow \gamma$

Union $\alpha \rightarrow \beta \wedge \alpha \rightarrow \gamma \implies \alpha \rightarrow \gamma\beta$

Decomposition $\alpha \rightarrow \beta\gamma \implies \alpha \rightarrow \beta \wedge \alpha \rightarrow \gamma$

Pseudo-transitivity $\alpha \rightarrow \beta \wedge \gamma\beta \rightarrow \delta \implies \alpha\gamma \rightarrow \delta$

Complementation $\alpha \twoheadrightarrow \beta \implies \alpha \twoheadrightarrow (R - \beta) - \alpha$

Multivalued augmentation $\alpha \twoheadrightarrow \beta \wedge \gamma \subseteq R \wedge \delta \subseteq \gamma \implies \gamma\alpha \twoheadrightarrow \delta\beta$

Multivalued transitivity $\alpha \twoheadrightarrow \beta \wedge \beta \twoheadrightarrow \gamma \implies \alpha \twoheadrightarrow \gamma - \beta$

Replication $\alpha \rightarrow \beta \implies \alpha \twoheadrightarrow \beta$

Coalescence $\alpha \twoheadrightarrow \beta \wedge \gamma \subseteq \beta \wedge \exists \delta : \delta \subseteq R \wedge \delta \cap \beta = \emptyset \wedge \delta \rightarrow \gamma \implies \alpha \rightarrow \gamma$