

Reflexive

Total

Symmetric

Transitive

\top

\top

xRy

$xRy \quad xRy$

xRx

$xRy \vee yRx$

yRx

xRz

[bp]

Irreflexive

Asymmetric

Antisymmetric

xRx

$xRy \quad yRx$

$xRy \quad yRx$

\perp

\perp

$x = y$