

Phase 10 a : Relation Operators

Example 1 : Relation Type

$R \leftrightarrow S$

Example 2 : Maplet Constructor

$x \mapsto y$
 $1 \mapsto 2$

Example 3 : Domain Restriction

$S \lhd R$

Example 4 : Range Restriction

$R \rhd T$

Example 5 : Relational Composition

$R ; S$
 $R \circ S$

Example 6 : Relation Functions

$\text{dom } R$
 $\text{ran } R$

Example 7 : Complex Expressions

$\text{dom}(S \lhd R)$
 $\text{ran}(R \rhd T)$
 $(A \lhd R) ; (R \rhd B)$

Example 8 : Chained Relations

$R \circ S \circ T$
 $A \lhd R \rhd B$

Example 9 : Relations with Set Operations

$(x \mapsto y) \in R$
 $\text{dom } R \subseteq S$
 $\text{ran } R \cup \text{ran } S$