Phase 11 . 8 : Relational Image

The relational image R(— S —) gives the image of set S under relation R.

Example 1 : Simple relational image

$R(\!|S|\!)$

Example 2 : Relational image with set literal

$R(\!|\{1,2,3\}|\!)$

Example 3 : Relational image with singleton set

$parentOf(\!|\{john\}|\!)$

Example 4 : Relational image with composition

$R \circ S(\!|A|\!)$

Example 5 : Relational image with inverse

$R^{-1}(\!|S|\!)$

Example 6 : Set comprehension with relational image (Solution 35 pattern)

$\{p : Person \mid p \in \text{dom}\, parentOf \bullet (p, parentOf(\!|\{p\}|\!))\}$

Example 7 : Chained relational images

$R(\!|S|\!)(\!|T|\!)$