

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

$(R^\sim(S))$

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

$((R(S))(T))$