

t144\_relat\_1  
(TMP6bYRDRjStsGgbpbdd6STZ1wxkB7WsnBD)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_relat\_1\ X0) \Rightarrow (\forall X1. \forall X2. (X2 = k8\_relat\_1\ X0\ X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow (\exists X4. (k4\_tarski\ X3\ X4 \in X0) \wedge (X4 \in X1)))) \quad (2)$$

**Theorem 1**

$$\forall X0. \forall X1. (v1\_relat\_1\ X1) \Rightarrow (\forall X2. (v1\_relat\_1\ X2) \Rightarrow ((r1\_tarski\ X1\ X2) \Rightarrow (r1\_tarski\ (k8\_relat\_1\ X1\ X0)\ (k8\_relat\_1\ X2\ X0))))$$