

t7\_xtuple\_0  
(TMVmKn9M6j1yuAkBstw3XefvC9XcnFFxVPm)

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Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. k4\_tarski X0 X1 = k2\_tarski (k2\_tarski X0 X1) (k1\_tarski X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2\_tarski X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k2\_tarski X0 X1 = k2\_tarski X1 X0 \quad (4)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. (k4\_tarski X0 X1 \in X2) \Rightarrow (X1 \in k3\_tarski (k3\_tarski X2))$$