

t4\_closure3  
(TMJ5ikstHWBnA5cW8545topAMrBpp6MtQ8u)

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Let  $r2\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  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.

$$\forall X0. \forall X1. (r2\_setfam\_1 X0 X1) \Leftrightarrow (\forall X2. \neg(X2 \in X1) \wedge (\forall X3. \neg(X3 \in X0) \wedge (r1\_tarski X3 X2))) \quad (2)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. ((r2\_setfam\_1 X1 X0) \wedge (r2\_setfam\_1 X2 X1)) \Rightarrow (r2\_setfam\_1 X2 X0)$$