

t16\_trees\_3  
(TMXG3PXYxwCAN17Kfo3pRhfr4o9yBEmvr)

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Let  $v2\_trees\_3 : \iota \Rightarrow o$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_trees\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v2\_trees\_3 X0) \Leftrightarrow (\forall X1.(X1 \in X0) \Rightarrow ((\neg v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_trees\_1 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski X0 X1 = k2\_tarski X1 X0 \quad (3)$$

**Theorem 1**

$$\forall X0.\forall X1.(v2\_trees\_3 (k2\_tarski X0 X1)) \Leftrightarrow (((\neg v1\_xboole\_0 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_trees\_1 X0))) \wedge ((\neg v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_trees\_1 X1))))$$