t3_trees_a (TMWrVKaC29XkktwCRmSnQz7xoyLxtsTAiBD)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_trees\_1 : \iota \Rightarrow o$ be given. Let $m4\_trees\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_trees\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(r2\_xboole\_0\ X0\ X1) \Leftrightarrow ((r1\_tarski\ X0\ X1) \wedge (X0 \neq X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v1\_trees\_1\ X0)) \Rightarrow (\forall X1.(m4\_trees\_1\ X1\ X0) \Rightarrow (r1\_tarski\ (ReplSep\ (toset\ (\lambda X2 : \iota.m1\_trees\_1\ X2\ X0))\ (\lambda X2 : \iota.\forall X3.(m2\_finseq\_1\ X3\ k5\_numbers) \Rightarrow (\neg(X3 \in X1) \wedge (r1\_tarski\ X3\ X2)))\ (\lambda X2 : \iota.X2))\ (ReplSep\ (toset\ (\lambda X2 : \iota.m1\_trees\_1\ X2\ X0))\ (\lambda X2 : \iota.\forall X3.(m2\_finseq\_1\ X3\ k5\_numbers) \Rightarrow (\neg(X3 \in X1) \wedge (r2\_xboole\_0\ X3\ X2)))\ (\lambda X2 : \iota.X2))))$$