

t43_trees_3 (TMQxHLVp-
JAWWyq3MZpa7yVobztUrDd4Q2PE)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k3_trees_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_trees_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_trees_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r2_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. (m1_trees_1 X1 X0) \Leftrightarrow (m1_subset_1 X1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. (m1_trees_1 X1 X0) \Rightarrow (m2_finseq_1 X1 k5_numbers)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \wedge ((m1_finseq_1 X1 k5_numbers) \wedge ((\neg v1_xboole_0 X2) \wedge (v1_trees_1 X2)))) \Rightarrow ((\neg v1_xboole_0 (k5_trees_1 X0 X1 X2)) \wedge (v1_trees_1 (k5_trees_1 X0 X1 X2))) \quad (5)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (m1_subset_1 (k3_trees_1 X0) (k1_zfmisc_1 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. \\
& (m2_finseq_1 X1 k5_numbers) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge \\
& (v1_trees_1 X2)) \Rightarrow ((X1 \in X0) \Rightarrow (\forall X3.((\neg v1_xboole_0 X3) \wedge \\
& v1_trees_1 X3)) \Rightarrow ((X3 = k5_trees_1 X0 X1 X2) \Leftrightarrow (\forall X4.(m2_finseq_1 \\
& X4 k5_numbers) \Rightarrow ((X4 \in X3) \Leftrightarrow (\neg(\neg(X4 \in X0) \wedge (\neg r2_xboole_0 X1 X4)) \wedge \\
& (\forall X5.(m2_finseq_1 X5 k5_numbers) \Rightarrow (\neg(X5 \in X2) \wedge (X4 = k8_finseq_1 \\
& k5_numbers X1 X5))))))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow ((X1 = k3_trees_1 X0) \Leftrightarrow (\forall X2. \\
& (m2_finseq_1 X2 k5_numbers) \Rightarrow ((X2 \in X1) \Leftrightarrow ((X2 \in X0) \wedge (\forall X3. \\
& (m2_finseq_1 X3 k5_numbers) \Rightarrow (\neg(X3 \in X0) \wedge (r2_xboole_0 X2 X3)))))))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarSKI X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{9}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. \\
& ((\neg v1_xboole_0 X1) \wedge (v1_trees_1 X1)) \Rightarrow (\forall X2.(m2_finseq_1 \\
& X2 k5_numbers) \Rightarrow ((X2 \in k3_trees_1 X0) \Rightarrow (r1_tarSKI X0 (k5_trees_1 \\
& X0 X2 X1))))
\end{aligned}$$