

t52_trees_3

(TMT6Ux5bqN6Qn12QQ7wTqs5PFjmnuGEZgqT)

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Let $k11_trees_3 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_trees_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $v4_trees_3 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_trees_3 : \iota \Rightarrow o$ be given. Let $v6_trees_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$k2_trees_1 k6_numbers = k1_tarski k1_xboole_0 \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v3_relat_1 X0) \wedge (v1_funct_1 X0))) \Rightarrow (v1_xboole_0 (k1_funct_1 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((\neg v1_xboole_0 (k11_trees_3 X0)) \wedge (v1_trees_1 (k11_trees_3 X0))) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ ((v4_trees_3 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v1_trees_1 \\ X1)) \Rightarrow ((X1 = k11_trees_3 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\neg(X2 \neq k1_xboole_0) \wedge \\ (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.((v1_relat_1 \\ X4) \wedge ((v1_funct_1 X4) \wedge (v1_finseq_1 X4))) \Rightarrow (\neg(\neg r1_xxreal_0 (k3_finseq_1 \\ X0) X3) \wedge ((X4 \in k1_funct_1 X0 (k2_nat_1 X3 np_1)) \wedge (X2 = k7_finseq_1 \\ (k12_finseq_1 k5_numbers X3) X4)))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.((v1_xboole_0 X0) \wedge (v1_relat_1 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v3_relat_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_relat_1 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_funct_1 X0) \quad (11)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_xboole_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v1_finseq_1 X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_xboole_0 X0))) \Rightarrow \\ ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v4_trees_3 X0) \wedge ((v5_trees_3 \\ X0) \wedge (v6_trees_3 X0)))))) \end{aligned} \quad (13)$$

Theorem 1 $k11_trees_3 k1_xboole_0 = k2_trees_1 k6_numbers.$