

t13_trees_4

(TMHBVEyeGh7ZfFBtaeTmacky9rm4jhzdiXr)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_trees_2 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k5_trees_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_trees_3 : \iota \Rightarrow \iota$ be given. Let $k2_funct_6 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_funct_6 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v6_trees_3 : \iota \Rightarrow o$ be given. Let $k4_trees_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_trees_3 : \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((k2_funct_6 (k9_finseq_1 X0) = k9_finseq_1 (k9_xtuple_0 X0)) \wedge (k3_funct_6 (k9_finseq_1 X0) = k9_finseq_1 (k10_xtuple_0 X0))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((v1_finseq_1 X1) \wedge (v6_trees_3 X1)))) \Rightarrow (k9_xtuple_0 (k4_trees_4 X0 X1) = k11_trees_3 (k2_funct_6 X1)) \quad (2)$$

Assume the following.

$$\forall X0. k9_finseq_1 X0 = k5_finseq_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. v1_finseq_1 (k5_finseq_1 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k1_tarski (k4_tarski X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow ((\neg v1_xboole_0 (k9_xtuple_0 X0)) \wedge (v1_trees_1 (k9_xtuple_0 X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.v1_funct_1 (k1_tarski (k4_tarski X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_trees_2 X0)))\Rightarrow ((\neg v1_xboole_0 (k5_finseq_1 X0))\wedge(v6_trees_3 (k5_finseq_1 X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v3_trees_2 X1)))\Rightarrow(k5_trees_4 X0 X1 = k4_trees_4 X0 (k9_finseq_1 X1)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (10)$$

Assume the following.

$$\forall X0.k5_finseq_1 X0 = k1_tarski (k4_tarski np_1 X0) \quad (11)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge(v1_trees_1 X0))\Rightarrow(k12_trees_3 X0 = k11_trees_3 (k9_finseq_1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski X0 X1 = k2_tarski X1 X0 \quad (13)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v3_trees_2 X1)))\Rightarrow(k9_xtuple_0 (k5_trees_4 X0 X1) = k12_trees_3 (k9_xtuple_0 X1))$$