

t1_bintree1

(TMdn3xtdeTnnFpi45tHLZNqEZK6rxpANesw)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_trees_2 : \iota \Rightarrow o$ be given. Let $k14_trees_3 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_bintree1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow (k14_trees_3 (k9_finseq_1 X0) = k9_finseq_1 (k1_funct_1 X0 k1_xboole_0)) \quad (1)$$

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k3_pre_poly X0 X1 = k5_finseq_1 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge (v3_trees_2 X1)))) \Rightarrow (m1_subset_1 (k1_bintree1 X0 X1) X0) \quad (4)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge (v3_trees_2 X1)))) \Rightarrow (k1_bintree1 X0 X1 = k1_funct_1 X1 k1_xboole_0) \quad (5)$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge (v3_trees_2 X1)))) \Rightarrow (k14_trees_3 (k9_finseq_1 X1) = k3_pre_poly X0 (k1_bintree1 X0 X1))$$