

t11_modal_1

(TMLY4cx2bkaSJum2dQeafGKS4qA69Jwm9xx)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $m1_trees_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_trees_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_trees_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v1_xboole_0 \\ X1) \wedge (v1_trees_1 X1)) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge (v1_trees_1 \\ X2)) \Rightarrow ((X0 \in X1) \Rightarrow (X2 = k4_trees_1 (k5_trees_1 X1 X0 X2) X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

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.

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

Theorem 1

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. \\ ((\neg v1_xboole_0 X1) \wedge (v1_trees_1 X1)) \Rightarrow (\forall X2.((\neg v1_xboole_0 \\ X2) \wedge (v1_trees_1 X2)) \Rightarrow (\forall X3.(m1_trees_1 X3 X0) \Rightarrow ((k5_trees_1 \\ X0 X3 X1 = k5_trees_1 X0 X3 X2) \Rightarrow (X1 = X2)))))) \end{aligned}$$