

t41_trees_1 (TMQ-
cUSHDTv6A5K3a4ziTJrMh3DAuW9FD1mF)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k7_trees_1 : \iota \Rightarrow \iota$ be given. Let $m4_trees_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow ((m4_trees_1 k1_xboole_0 X0) \wedge (m4_trees_1 (k1_tarski k1_xboole_0) X0)) \quad (1)$$

Assume the following.

$$\forall X0.k1_card_1 (k1_tarski X0) = np_1 \quad (2)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_finset_1 X0) \wedge (v1_trees_1 X0))) \Rightarrow (m1_subset_1 (k7_trees_1 X0) k5_numbers) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_finset_1 X0) \wedge (v1_trees_1 X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow ((X1 = k7_trees_1 X0) \Leftrightarrow (\exists X2.(m4_trees_1 X2 X0) \wedge ((X1 = k5_card_1 X2) \wedge (\forall X3. \\ (m4_trees_1 X3 X0) \Rightarrow (r1_xreal_0 (k5_card_1 X3) (k5_card_1 X2))))))) \quad (5) \end{aligned}$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_finset_1 X0) \wedge (v1_trees_1 X0))) \Rightarrow (\forall X1.(m4_trees_1 X1 X0) \Rightarrow (v1_finset_1 X1)) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_finset_1 X0) \wedge (v1_trees_1 X0))) \Rightarrow (r1_xreal_0 np_1 (k7_trees_1 X0))$$