

t20_trees_9

(TMTqX2ZaTkTpC7u413AnWNPgf31xEcAR4ta)

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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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_trees_3 : \iota \Rightarrow o$ be given. Let $k9_trees_9 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_trees_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k5_trees_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_trees_9 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge (v3_trees_3 X1)) \Rightarrow (\\ (X0 \in k9_trees_9 X1) \Leftrightarrow (\exists X2. (m1_subset_1 X2 X1) \wedge (\exists X3. \\ (m1_trees_1 X3 (k9_xtuple_0 X2)) \wedge (X0 = k5_trees_2 X2 X3)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow (X0 \in k3_trees_9 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v3_trees_2 X1))) \Rightarrow ((X0 \in k3_trees_9 X1) \Leftrightarrow (\exists X2. (m1_trees_1 X2 (k9_xtuple_0 X1)) \wedge (X0 = k5_trees_2 X1 X2))) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\ (\forall X1. ((\neg v1_xboole_0 X1) \wedge (v3_trees_3 X1)) \Rightarrow ((X0 \in X1) \Rightarrow (\\ X0 \in k9_trees_9 X1))) \end{aligned}$$