

t31_trees_2

(TMUg6AgFNqR2gnJmL2bG9gn47Q5m9DC8tD4)

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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 $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge (v1_trees_1 X1)) \Rightarrow (X0 \in X1) \Rightarrow (m2_finseq_1 X0 k5_numbers) \quad (1)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow ((v3_trees_2 X0) \Leftrightarrow ((\neg v1_xboole_0 (k9_xtuple_0 X0)) \wedge (v1_trees_1 (k9_xtuple_0 X0)))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X0 = X1) \Leftrightarrow ((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge (\forall X2. (X2 \in k9_xtuple_0 X0) \Rightarrow (k1_funct_1 X0 X2 = k1_funct_1 X1 X2)))))) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\ & (\forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v3_trees_2 X1))) \Rightarrow \\ & (((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge (\forall X2. (m2_finseq_1 X2 k5_numbers) \Rightarrow ((X2 \in k9_xtuple_0 X0) \Rightarrow (k1_funct_1 X0 X2 = k1_funct_1 X1 X2)))))) \Rightarrow (X0 = X1)) \end{aligned}$$