

t6_trees_9

(TMF8f15fwU5h24tG9a951Q3mmiTyyMMAYps)

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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 $m1_trees_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_zfmisc_1 : \iota \Rightarrow o$ be given. Let $k5_trees_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_trees_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $k4_trees_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_trees_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. \\ & (m1_trees_1 X1 X0) \Rightarrow ((k4_trees_1 X0 X1 = k2_trees_1 k6_numbers) \Leftrightarrow \\ & (X1 \in k3_trees_1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\ & ((\neg v1_xboole_0 (k9_xtuple_0 X0)) \wedge (v1_trees_1 (k9_xtuple_0 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_trees_1 X0)) \Rightarrow (\forall X1. \\ & (m1_trees_1 X1 X0) \Rightarrow (m2_finseq_1 X1 k5_numbers)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 \\ & X0))) \wedge (m1_finseq_1 X1 k5_numbers)) \Rightarrow ((v1_relat_1 (k5_trees_2 \\ & X0 X1)) \wedge ((v1_funct_1 (k5_trees_2 X0 X1)) \wedge (v3_trees_2 (k5_trees_2 \\ & X0 X1)))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\ & ((v1_zfmisc_1 X0) \Leftrightarrow (k9_xtuple_0 X0 = k2_trees_1 k6_numbers)) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\
& \quad (\forall X1.(m2_finseq_1 X1 k5_numbers) \Rightarrow (\forall X2.((v1_relat_1 \\
& X2) \wedge ((v1_funct_1 X2) \wedge (v3_trees_2 X2))) \Rightarrow ((X2 = k5_trees_2 X0 X1) \Leftrightarrow \\
& \quad ((k9_xtuple_0 X2 = k4_trees_1 (k9_xtuple_0 X0) X1) \wedge (\forall X3. \\
& \quad (m2_finseq_1 X3 k5_numbers) \Rightarrow ((X3 \in k4_trees_1 (k9_xtuple_0 X0) \\
& X1) \Rightarrow (k1_funct_1 X2 X3 = k1_funct_1 X0 (k8_finseq_1 k5_numbers X1 \\
& \quad X3)))))))))
\end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\
& \quad (\forall X1.(m1_trees_1 X1 (k9_xtuple_0 X0)) \Rightarrow ((v1_zfmisc_1 (\\
& \quad k5_trees_2 X0 X1)) \Leftrightarrow (X1 \in k3_trees_1 (k9_xtuple_0 X0))))
\end{aligned}$$