

t17_trees_9
 (TMao1ggELxVDPAq6WndUvAsnLnSv4fgasv3)

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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 $k7_trees_9 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k3_trees_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow \\
 & (\forall X1.k7_trees_9 X0 X1 = ReplSep (toset (\lambda X2 : \iota.m1_trees_1 \\
 & X2 (k9_xtuple_0 X0)))) (\lambda X2 : \iota. \neg (X2 \in k3_trees_1 (k9_xtuple_0 \\
 & X0))) \wedge (\neg k1_funct_1 X0 X2 \in X1)) (\lambda X2 : \iota.k5_trees_2 X0 X2))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v3_trees_2 \\
 & X1))) \Rightarrow (\forall X2.(X0 \in k7_trees_9 X1 X2) \Leftrightarrow (\exists X3.(m1_trees_1 \\
 & X3 (k9_xtuple_0 X1)) \wedge ((X0 = k5_trees_2 X1 X3) \wedge (\neg (X3 \in k3_trees_1 \\
 & (k9_xtuple_0 X1)) \wedge (\neg k1_funct_1 X1 X3 \in X2))))))
 \end{aligned}$$