

t23_trees_3 (TMN-
pcgZnRD5hYym8etcp13WUgGstT5V7Bse)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_trees_3 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_trees_1 : \iota \Rightarrow o$ be given. Let $v2_trees_3 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v2_trees_3 X0) \Leftrightarrow (\forall X1.(X1 \in X0) \Rightarrow ((\neg v1_xboole_0 X1) \wedge ((v1_finset_1 X1) \wedge (v1_trees_1 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 X0) \wedge (X2 = k1_funct_1 X0 X3)))) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v5_trees_3 X0) \Leftrightarrow (v2_trees_3 (k10_xtuple_0 X0))) \quad (3)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v5_trees_3 X0) \Leftrightarrow (\forall X1.(X1 \in k9_xtuple_0 X0) \Rightarrow ((\neg v1_xboole_0 (k1_funct_1 X0 X1)) \wedge ((v1_finset_1 (k1_funct_1 X0 X1)) \wedge (v1_trees_1 (k1_funct_1 X0 X1)))))))$$