

t16_weddwitt (TMWhmYpQEVQGHEMY- Cdja8Do6oWgrRFR77LD)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_weddwitt : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k1_realset1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (l2_struct_0 X0) \Rightarrow (l1_struct_0 X0) \quad (4)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ & ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ & X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow ((\neg v2_struct_0 (k4_weddwitt \\ & X0) \wedge ((\neg v6_struct_0 (k4_weddwitt X0) \wedge ((v13_algstr_0 (k4_weddwitt \\ & X0) \wedge ((v33_algstr_0 (k4_weddwitt X0) \wedge ((v36_algstr_0 (k4_weddwitt \\ & X0) \wedge ((v2_rlvect_1 (k4_weddwitt X0) \wedge ((v3_rlvect_1 (k4_weddwitt \\ & X0) \wedge ((v4_rlvect_1 (k4_weddwitt X0) \wedge ((v3_group_1 (k4_weddwitt \\ & X0) \wedge ((v5_group_1 (k4_weddwitt X0) \wedge ((v4_vectsp_1 (k4_weddwitt \\ & X0) \wedge ((v5_vectsp_1 (k4_weddwitt X0) \wedge (l6_algstr_0 (k4_weddwitt \\ & X0))))))))))))))))) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ & ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ & X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1.((\neg v2_struct_0 \\ & X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\ & ((v36_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 \\ & X1) \wedge ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((\\ & v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))))))))))) \Rightarrow ((X1 = k4_weddwitt \\ & X0) \Leftrightarrow ((u1_struct_0 X1 = ReplSep (toset (\lambda X2 : \iota.m1_subset.1 \\ & X2 (u1_struct_0 X0))) (\lambda X2 : \iota.\forall X3.(m1_subset.1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 X0 X2 X3 = k6_algstr_0 X0 X3 X2)) \\ & (\lambda X2 : \iota.X2)) \wedge ((u1_algstr_0 X1 = k1_realset1 (u1_algstr_0 \\ & X0) (u1_struct_0 X1)) \wedge ((u2_algstr_0 X1 = k1_realset1 (u2_algstr_0 \\ & X0) (u1_struct_0 X1)) \wedge ((k4_struct_0 X1 = k4_struct_0 X0) \wedge (k5_struct_0 \\ & X1 = k5_struct_0 X0))))))))) \end{aligned} \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{8}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ & ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ & X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (r1_tarski (u1_struct_0 (k4_weddwitt \\ & X0)) (u1_struct_0 X0)) \end{aligned}$$