

t25_weddwitt
(TMcXL7nGAqdEqHqcywo1Qj2Ke2uhvS4csAz)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_weddwitt : \iota \Rightarrow \iota$ be given. Let $k5_weddwitt : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ & ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ & X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow \\ & ((X2 \in u1_struct_0 (k5_weddwitt X0 X1)) \Leftrightarrow (k6_algstr_0 X0 X2 X1 = k6_algstr_0 \\ & X0 X1 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ & ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ & X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow ((\neg v2_struct_0 (k4_weddwitt \\ & X0)) \wedge ((\neg v6_struct_0 (k4_weddwitt X0)) \wedge ((v13_algstr_0 (k4_weddwitt \\ & X0)) \wedge ((v33_algstr_0 (k4_weddwitt X0)) \wedge ((v36_algstr_0 (k4_weddwitt \\ & X0)) \wedge ((v2_rlvect_1 (k4_weddwitt X0)) \wedge ((v3_rlvect_1 (k4_weddwitt \\ & X0)) \wedge ((v4_rlvect_1 (k4_weddwitt X0)) \wedge ((v3_group_1 (k4_weddwitt \\ & X0)) \wedge ((v5_group_1 (k4_weddwitt X0)) \wedge ((v4_vectsp_1 (k4_weddwitt \\ & X0)) \wedge ((v5_vectsp_1 (k4_weddwitt X0)) \wedge (l6_algstr_0 (k4_weddwitt \\ & X0)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\
& ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\
& X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1.((\neg v2_struct_0 \\
& X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\
& ((v36_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 \\
& X1) \wedge ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((\\
& v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))))))) \Rightarrow ((X1 = k4_weddwitt \\
& X0) \Leftrightarrow ((u1_struct_0 X1 = ReplSep (toset (\lambda X2 : \iota.m1_subset_1 \\
& X2 (u1_struct_0 X0))) (\lambda X2 : \iota.\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 X0 X2 X3 = k6_algstr_0 X0 X3 X2)) \\
& (\lambda X2 : \iota.X2)) \wedge ((u1_algstr_0 X1 = k1_realset1 (u1_algstr_0 \\
& X0) (u1_struct_0 X1)) \wedge ((u2_algstr_0 X1 = k1_realset1 (u2_algstr_0 \\
& X0) (u1_struct_0 X1)) \wedge ((k4_struct_0 X1 = k4_struct_0 X0) \wedge (k5_struct_0 \\
& X1 = k5_struct_0 X0))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\
& ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\
& X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 \\
& (u1_struct_0 X0) \Rightarrow (r1_tarski (u1_struct_0 (k4_weddwitt X0)) \\
& (u1_struct_0 (k5_weddwitt X0 X1))))
\end{aligned}$$