

t16_matrix_3 (TMP- buLrR1x2DMZBFA4Jymkvcb9xZpQgFAxc)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. 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 $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ 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 $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k12_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\
 & ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge (\\
 & (v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\
 & X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\
 & (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\\
 & \forall X3.(v7_ordinal1 X3) \Rightarrow (((k4_tarski X2 X3 \in k2_matrix_1 (\\
 & k12_matrix_1 X1 X0)) \wedge (X2 = X3)) \Rightarrow (k1_funct_1 (k9_matrix_1 (u1_struct_0 \\
 & X1) (k12_matrix_1 X1 X0) X3) X2 = k5_struct_0 X1))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\
 & ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge (\\
 & (v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\
 & X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\
 & (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\\
 & \forall X3.(v7_ordinal1 X3) \Rightarrow ((k4_tarski X2 X3 \in k2_matrix_1 (k12_matrix_1 \\
 & X1 X0)) \Rightarrow ((X2 = X3) \vee (k1_funct_1 (k9_matrix_1 (u1_struct_0 X1) (\\
 & k12_matrix_1 X1 X0) X3) X2 = k4_struct_0 X1))))))
 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\ & ((\neg v6_struct_0\ X1) \wedge ((v13_algstr_0\ X1) \wedge ((v33_algstr_0\ X1) \wedge \\ & (v3_group_1\ X1) \wedge ((v5_group_1\ X1) \wedge ((v2_rlvect_1\ X1) \wedge ((v3_rlvect_1 \\ & X1) \wedge ((v4_rlvect_1\ X1) \wedge ((v4_vectsp_1\ X1) \wedge ((v5_vectsp_1\ X1) \wedge \\ & (l6_algstr_0\ X1)))))))))) \Rightarrow (\forall X2.(v7_ordinal1\ X2) \Rightarrow (\\ & \forall X3.(v7_ordinal1\ X3) \Rightarrow ((k4_tarski\ X2\ X3 \in k2_matrix_1\ (k12_matrix_1 \\ & X1\ X0)) \Rightarrow (((X2 = X3) \Rightarrow (k1_funct_1\ (k9_matrix_1\ (u1_struct_0\ X1) \\ & (k12_matrix_1\ X1\ X0)\ X3)\ X2 = k5_struct_0\ X1)) \wedge ((X2 \neq X3) \Rightarrow (k1_funct_1 \\ & (k9_matrix_1\ (u1_struct_0\ X1)\ (k12_matrix_1\ X1\ X0)\ X3)\ X2 = k4_struct_0 \\ & X1)))))) \end{aligned}$$