

t19_matrix14

(TMbjQs89v65ciSoCyRdY2DpeNYpPB5uhGnn)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $v2_rlvect_1 : \iota \Rightarrow o$ 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 $v5_group_1 : \iota \Rightarrow o$ 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 $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v2_struct_0 \\
 & X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\
 & ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_group_1 \\
 & X1) \wedge ((v5_group_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge (\\
 & l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 \\
 & X1) X0 X0) \Rightarrow (\forall X3.(m1_matrix_1 X3 (u1_struct_0 X1) X0 X0) \Rightarrow \\
 & (((v1_matrix_6 X2 X0 X1) \wedge (X3 = k5_matrix_6 X0 X1 X2)) \Rightarrow ((k4_matrix_6 \\
 & X0 X1 X3 X2 = k12_matrix_1 X1 X0) \wedge (k4_matrix_6 X0 X1 X2 X3 = k12_matrix_1 \\
 & X1 X0))) \wedge (((k4_matrix_6 X0 X1 X3 X2 = k12_matrix_1 X1 X0) \wedge (k4_matrix_6 \\
 & X0 X1 X2 X3 = k12_matrix_1 X1 X0)) \Rightarrow ((v1_matrix_6 X2 X0 X1) \wedge (X3 = k5_matrix_6 \\
 & X0 X1 X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v7_ordinal1\ X0) \wedge (((\neg v2_struct_0 \\ & X1) \wedge ((\neg v6_struct_0\ X1) \wedge ((v13_algstr_0\ X1) \wedge ((v33_algstr_0\ X1) \wedge \\ & ((v3_group_1\ X1) \wedge ((v5_group_1\ X1) \wedge ((v2_rlvect_1\ X1) \wedge ((v3_rlvect_1 \\ & X1) \wedge ((v4_rlvect_1\ X1) \wedge ((v4_vectsp_1\ X1) \wedge ((v5_vectsp_1\ X1) \wedge \\ & (l6_algstr_0\ X1)))))))))) \wedge (m1_matrix_1\ X2\ (u1_struct_0\ X1) \\ & X0\ X0)) \Rightarrow (m1_matrix_1\ (k5_matrix_6\ X0\ X1\ X2)\ (u1_struct_0\ X1)\ X0 \\ & X0) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. (m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1\ X0\ k5_numbers) \Rightarrow (\forall X1. ((\neg v2_struct_0 \\ & X1) \wedge ((\neg v6_struct_0\ X1) \wedge ((v13_algstr_0\ X1) \wedge ((v33_algstr_0\ X1) \wedge \\ & ((v2_rlvect_1\ X1) \wedge ((v3_rlvect_1\ X1) \wedge ((v4_rlvect_1\ X1) \wedge ((v3_group_1 \\ & X1) \wedge ((v5_group_1\ X1) \wedge ((v4_vectsp_1\ X1) \wedge ((v5_vectsp_1\ X1) \wedge \\ & (l6_algstr_0\ X1)))))))))) \Rightarrow (\forall X2. (m1_matrix_1\ X2\ (u1_struct_0 \\ & X1)\ X0\ X0) \Rightarrow ((v1_matrix_6\ X2\ X0\ X1) \Leftrightarrow (\exists X3. (m1_matrix_1\ X3 \\ & (u1_struct_0\ X1)\ X0\ X0) \wedge ((k4_matrix_6\ X0\ X1\ X3\ X2 = k12_matrix_1 \\ & X1\ X0) \wedge (k4_matrix_6\ X0\ X1\ X2\ X3 = k12_matrix_1\ X1\ X0)))))) \end{aligned}$$