

t52_matrix_8

(TMY2TdbEycRNxLKEr1N2EVrWNMyYbguTYUD)

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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 $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_matrix_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((\neg v6_struct_0 X1) \wedge (v13_algstr_0 X1) \wedge (v33_algstr_0 X1) \wedge \\ & (v3_group_1 X1) \wedge (v5_group_1 X1) \wedge (v2_rlvect_1 X1) \wedge (v3_rlvect_1 \\ & X1) \wedge (v4_rlvect_1 X1) \wedge (v4_vectsp_1 X1) \wedge (v5_vectsp_1 X1) \wedge \\ & (l6_algstr_0 X1)))))) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 \\ X1) X0 X0) \Rightarrow (k13_matrix_3 X0 X1 X2 = k13_matrix_3 X0 X1 (k5_matrix_1 \\ X0 (u1_struct_0 X1) X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((\neg v6_struct_0 X1) \wedge (v13_algstr_0 X1) \wedge (v33_algstr_0 X1) \wedge \\ & (v3_group_1 X1) \wedge (v5_group_1 X1) \wedge (v2_rlvect_1 X1) \wedge (v3_rlvect_1 \\ & X1) \wedge (v4_rlvect_1 X1) \wedge (v4_vectsp_1 X1) \wedge (v5_vectsp_1 X1) \wedge \\ & (l6_algstr_0 X1)))))) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 \\ X1) X0 X0) \Rightarrow (m1_matrix_1 (k5_matrix_1 X0 (u1_struct_0 X1) X2) (u1_struct_0 \\ X1) X0 X0)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\
& ((\neg v6_struct_0\ X1) \wedge (v13_algstr_0\ X1) \wedge (v33_algstr_0\ X1) \wedge \\
& (v3_group_1\ X1) \wedge (v5_group_1\ X1) \wedge (v2_rlvect_1\ X1) \wedge (v3_rlvect_1 \\
& X1) \wedge (v4_rlvect_1\ X1) \wedge (v4_vectsp_1\ X1) \wedge (v5_vectsp_1\ X1) \wedge \\
& (l6_algstr_0\ X1)))))) \Rightarrow (\forall X2.(m1_matrix_1\ X2\ (u1_struct_0 \\
& X1)\ X0\ X0) \Rightarrow (k1_matrix_8\ X0\ X1\ X2 = k4_rlvect_1\ X1\ (k13_matrix_3\ X0 \\
& X1\ X2)))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\
& ((\neg v6_struct_0\ X1) \wedge (v13_algstr_0\ X1) \wedge (v33_algstr_0\ X1) \wedge \\
& (v3_group_1\ X1) \wedge (v5_group_1\ X1) \wedge (v2_rlvect_1\ X1) \wedge (v3_rlvect_1 \\
& X1) \wedge (v4_rlvect_1\ X1) \wedge (v4_vectsp_1\ X1) \wedge (v5_vectsp_1\ X1) \wedge \\
& (l6_algstr_0\ X1)))))) \Rightarrow (\forall X2.(m1_matrix_1\ X2\ (u1_struct_0 \\
& X1)\ X0\ X0) \Rightarrow (k1_matrix_8\ X0\ X1\ X2 = k1_matrix_8\ X0\ X1\ (k5_matrix_1 \\
& X0\ (u1_struct_0\ X1)\ X2)))
\end{aligned}$$