

t15_matrix16

(TMHN73KKuYeMchTDDYDWQ1Kh2Y76WhqiLeG)

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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 $v3_group_1 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_matrix16 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v2_struct_0 \\ & X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\ & ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\ & X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\ & (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & X1)) \Rightarrow (\forall X3.(m1_matrix_1 X3 (u1_struct_0 X1) X0 X0) \Rightarrow ((v1_matrix16 \\ & X3 (u1_struct_0 X1)) \Rightarrow (v1_matrix16 (k2_matrix13 X0 X0 X1 X3 X2) (\\ & u1_struct_0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v2_struct_0 \\ & X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\ & ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\ & X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\ & (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 \\ & X1) X0 X0) \Rightarrow (\forall X3.(m1_matrix_1 X3 (u1_struct_0 X1) X0 X0) \Rightarrow \\ & (((v1_matrix16 X2 (u1_struct_0 X1)) \wedge (v1_matrix16 X3 (u1_struct_0 \\ & X1))) \Rightarrow (v1_matrix16 (k3_matrix_6 X0 X1 X2 X3) (u1_struct_0 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.((v7_ordinal1\ X0)\wedge \\
& ((\neg v2_struct_0\ X1)\wedge((\neg v6_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge \\
& ((v33_algstr_0\ X1)\wedge((v3_group_1\ X1)\wedge((v5_group_1\ X1)\wedge((v2_rlvect_1 \\
& X1)\wedge((v3_rlvect_1\ X1)\wedge((v4_rlvect_1\ X1)\wedge((v4_vectsp_1\ X1)\wedge \\
& ((v5_vectsp_1\ X1)\wedge(l6_algstr_0\ X1))))))))))\wedge((m1_matrix_1 \\
& X2\ (u1_struct_0\ X1)\ X0\ X0)\wedge(m1_matrix_1\ X3\ (u1_struct_0\ X1)\ X0\ X0)))\Rightarrow \\
& (m1_matrix_1\ (k3_matrix_6\ X0\ X1\ X2\ X3)\ (u1_struct_0\ X1)\ X0\ X0)
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v7_ordinal1 \\
& X0)\wedge((v7_ordinal1\ X1)\wedge((\neg v2_struct_0\ X2)\wedge((\neg v6_struct_0\ X2)\wedge \\
& ((v13_algstr_0\ X2)\wedge((v33_algstr_0\ X2)\wedge((v3_group_1\ X2)\wedge((v5_group_1 \\
& X2)\wedge((v2_rlvect_1\ X2)\wedge((v3_rlvect_1\ X2)\wedge((v4_rlvect_1\ X2)\wedge \\
& ((v4_vectsp_1\ X2)\wedge((v5_vectsp_1\ X2)\wedge(l6_algstr_0\ X2))))))))))\wedge \\
& ((m1_matrix_1\ X3\ (u1_struct_0\ X2)\ X0\ X1)\wedge(m1_subset_1\ X4\ (u1_struct_0 \\
& X2))))\Rightarrow(m1_matrix_1\ (k2_matrix13\ X0\ X1\ X2\ X3\ X4)\ (u1_struct_0 \\
& X2)\ X0\ X1)
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1\ X0\ k5_numbers)\Rightarrow(\forall X1.((\neg v2_struct_0 \\
& X1)\wedge((\neg v6_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge((v33_algstr_0\ X1)\wedge \\
& ((v3_group_1\ X1)\wedge((v5_group_1\ X1)\wedge((v2_rlvect_1\ X1)\wedge((v3_rlvect_1 \\
& X1)\wedge((v4_rlvect_1\ X1)\wedge((v4_vectsp_1\ X1)\wedge((v5_vectsp_1\ X1)\wedge \\
& (l6_algstr_0\ X1))))))))))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (u1_struct_0 \\
& X1))\Rightarrow(\forall X3.(m1_subset_1\ X3\ (u1_struct_0\ X1))\Rightarrow(\forall X4. \\
& (m1_subset_1\ X4\ (u1_struct_0\ X1))\Rightarrow(\forall X5.(m1_matrix_1\ X5 \\
& (u1_struct_0\ X1)\ X0\ X0)\Rightarrow(\forall X6.(m1_matrix_1\ X6\ (u1_struct_0 \\
& X1)\ X0\ X0)\Rightarrow(\forall X7.(m1_matrix_1\ X7\ (u1_struct_0\ X1)\ X0\ X0)\Rightarrow \\
& (((v1_matrix16\ X5\ (u1_struct_0\ X1))\wedge((v1_matrix16\ X6\ (u1_struct_0 \\
& X1))\wedge(v1_matrix16\ X7\ (u1_struct_0\ X1))))\Rightarrow(v1_matrix16\ (k3_matrix_6 \\
& X0\ X1\ (k3_matrix_6\ X0\ X1\ (k2_matrix13\ X0\ X0\ X1\ X5\ X2)\ (k2_matrix13 \\
& X0\ X0\ X1\ X6\ X3))\ (k2_matrix13\ X0\ X0\ X1\ X7\ X4))\ (u1_struct_0\ X1))))))
\end{aligned}$$