

t10_matrix16

(TMJ8KSpVx4igG7PZ1eE9wkC5ZhbZBYTpDL5)

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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 $k2_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v2_struct_0 \\
 & X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\
 & ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\
 & X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\
 & (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 \\
 & X1) X0 X0) \Rightarrow (\forall X3.(m1_matrix_1 X3 (u1_struct_0 X1) X0 X0) \Rightarrow \\
 & (\forall X4.(m1_matrix_1 X4 (u1_struct_0 X1) X0 X0) \Rightarrow (((v1_matrix16 \\
 & X2 (u1_struct_0 X1)) \wedge ((v1_matrix16 X3 (u1_struct_0 X1)) \wedge (v1_matrix16 \\
 & X4 (u1_struct_0 X1)))) \Rightarrow (v1_matrix16 (k2_matrix_6 X0 X1 (k2_matrix_6 \\
 & X0 X1 X2 X3) X4) (u1_struct_0 X1))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v2_struct_0 \\
 & X1) \wedge ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge \\
 & ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\
 & X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\
 & (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\
 & X1)) \Rightarrow (\forall X3.(m1_matrix_1 X3 (u1_struct_0 X1) X0 X0) \Rightarrow ((v1_matrix16 \\
 & X3 (u1_struct_0 X1)) \Rightarrow (v1_matrix16 (k2_matrix13 X0 X0 X1 X3 X2) (\\
 & u1_struct_0 X1))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v7_ordinal1 \\ & X0)\wedge((v7_ordinal1 X1)\wedge((\neg v2_struct_0 X2)\wedge((\neg v6_struct_0 X2)\wedge \\ & ((v13_algstr_0 X2)\wedge((v33_algstr_0 X2)\wedge((v3_group_1 X2)\wedge((v5_group_1 \\ & X2)\wedge((v2_rlvect_1 X2)\wedge((v3_rlvect_1 X2)\wedge((v4_rlvect_1 X2)\wedge \\ & ((v4_vectsp_1 X2)\wedge((v5_vectsp_1 X2)\wedge(l6_algstr_0 X2))))))))))\wedge \\ & ((m1_matrix_1 X3 (u1_struct_0 X2) X0 X1)\wedge(m1_subset_1 X4 (u1_struct_0 \\ & X2))))))\Rightarrow(m1_matrix_1 (k2_matrix13 X0 X1 X2 X3 X4) (u1_struct_0 \\ & X2) X0 X1) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers)\Rightarrow(\forall X1.((\neg v2_struct_0 \\ & X1)\wedge((\neg v6_struct_0 X1)\wedge((v13_algstr_0 X1)\wedge((v33_algstr_0 X1)\wedge \\ & ((v3_group_1 X1)\wedge((v5_group_1 X1)\wedge((v2_rlvect_1 X1)\wedge((v3_rlvect_1 \\ & X1)\wedge((v4_rlvect_1 X1)\wedge((v4_vectsp_1 X1)\wedge((v5_vectsp_1 X1)\wedge \\ & (l6_algstr_0 X1))))))))))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & X1))\Rightarrow(\forall X3.(m1_subset_1 X3 (u1_struct_0 X1))\Rightarrow(\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 X1))\Rightarrow(\forall X5.(m1_matrix_1 X5 \\ & (u1_struct_0 X1) X0 X0)\Rightarrow(\forall X6.(m1_matrix_1 X6 (u1_struct_0 \\ & X1) X0 X0)\Rightarrow(\forall X7.(m1_matrix_1 X7 (u1_struct_0 X1) X0 X0)\Rightarrow \\ & (((v1_matrix16 X5 (u1_struct_0 X1))\wedge((v1_matrix16 X6 (u1_struct_0 \\ & X1))\wedge(v1_matrix16 X7 (u1_struct_0 X1))))\Rightarrow(v1_matrix16 (k2_matrix_6 \\ & X0 X1 (k2_matrix_6 X0 X1 (k2_matrix13 X0 X0 X1 X5 X2) (k2_matrix13 \\ & X0 X0 X1 X6 X3)) (k2_matrix13 X0 X0 X1 X7 X4)) (u1_struct_0 X1)))))))))) \end{aligned}$$