

t26_matrix13 (TM- NUvm1M2RRapC9BgQ8oBb8rtqFaTBVfnmd)

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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 $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_matrix_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\
& ((\neg v6_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v33_algstr_0 X1) \wedge (\\
& (v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 \\
& X1) \wedge ((v4_rlvect_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge \\
& (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\\
& \forall X3.(v7_ordinal1 X3) \Rightarrow (((X2 \in k2_finseq_1 X0) \wedge (X3 \in k2_finseq_1 \\
& X0)) \Rightarrow ((r1_xxreal_0 X3 X2) \vee (\forall X4.(m1_matrix_1 X4 (u1_struct_0 \\
& X1) X0 X0) \Rightarrow ((k8_matrix_1 (u1_struct_0 X1) X4 X2 = k8_matrix_1 (u1_struct_0 \\
& X1) X4 X3) \Rightarrow (k12_matrix_3 X0 X1 X4 = k4_struct_0 X1)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\\ \forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (\forall X4. \\ (v7_ordinal1 X4) \Rightarrow (\forall X5.((v1_matrix_1 X5) \wedge (m2_finseq_1 \\ X5 (k3_finseq_2 X0))) \Rightarrow (\forall X6.(m2_finseq_2 X6 k5_numbers \\ (k4_finseq_2 X3 k5_numbers)) \Rightarrow (\forall X7.(m2_finseq_2 X7 k5_numbers \\ (k4_finseq_2 X1 k5_numbers)) \Rightarrow (((X2 \in k2_finseq_1 X3) \wedge ((X4 \in k2_finseq_1 \\ X3) \wedge (k1_funct_1 X6 X2 = k1_funct_1 X6 X4))) \Rightarrow (k8_matrix_1 X0 (k1_matrix13 \\ X0 X5 X3 X1 X6 X7) X2 = k8_matrix_1 X0 (k1_matrix13 X0 X5 X3 X1 X6 X7) X4)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0) \Rightarrow (l1_struct_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1 X0) \Rightarrow (m1_finseq_2 (k4_finseq_2 X0 X1) X1) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ ((\neg v1_xboole_0 X0) \wedge (((v1_matrix_1 X1) \wedge (m1_finseq_1 X1 (k3_finseq_2 \\ X0))) \wedge ((v7_ordinal1 X2) \wedge ((v7_ordinal1 X3) \wedge ((m1_subset_1 X4 \\ (k4_finseq_2 X2 k5_numbers)) \wedge (m1_subset_1 X5 (k4_finseq_2 X3 \\ k5_numbers)))))) \Rightarrow (m1_matrix_1 (k1_matrix13 X0 X1 X2 X3 X4 X5) \\ X0 X2 X3) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (\forall X3. ((\neg v2_struct_0 X3) \wedge ((\neg v6_struct_0 \\ & X3) \wedge ((v13_algstr_0 X3) \wedge ((v33_algstr_0 X3) \wedge ((v3_group_1 X3) \wedge \\ & ((v5_group_1 X3) \wedge ((v2_rlvect_1 X3) \wedge ((v3_rlvect_1 X3) \wedge ((v4_rlvect_1 \\ & X3) \wedge ((v4_vectsp_1 X3) \wedge ((v5_vectsp_1 X3) \wedge (l6_algstr_0 X3)))))))))) \Rightarrow \\ & (\forall X4.(m2_finseq_2 X4 k5_numbers (k4_finseq_2 X1 k5_numbers)) \Rightarrow \\ & (\forall X5.(m2_finseq_2 X5 k5_numbers (k4_finseq_2 X1 k5_numbers)) \Rightarrow \\ & (\forall X6. ((v1_matrix_1 X6) \wedge (m2_finseq_1 X6 (k3_finseq_2 (\\ & u1_struct_0 X3)))) \Rightarrow (((X0 \in k2_finseq_1 X1) \wedge ((X2 \in k2_finseq_1 \\ & X1) \wedge (k1_funct_1 X4 X0 = k1_funct_1 X4 X2))) \Rightarrow ((X0 = X2) \vee (k12_matrix_3 \\ & X1 X3 (k1_matrix13 (u1_struct_0 X3) X6 X1 X1 X4 X5) = k4_struct_0 X3))))))))) \end{aligned}$$