

t79_matrix13

(TMWjm3JNrVqXvGDWYzy7jPGd3LuuTR6hS6N)

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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 $v1_matrix_1 : \iota \Rightarrow o$ 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 $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k5_matrix13 : \iota \Rightarrow \iota$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let

$k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\
& ((\neg v2_struct_0 X2) \wedge ((\neg v6_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge (\\
& (v33_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 X2) \wedge ((v2_rlvect_1 \\
& X2) \wedge ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge ((v4_vectsp_1 X2) \wedge \\
& ((v5_vectsp_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow (\forall X3. \\
& (m2_finseq_2 X3 k5_numbers (k4_finseq_2 X0 k5_numbers)) \Rightarrow (\forall X4. \\
& (m2_finseq_2 X4 k5_numbers (k4_finseq_2 X1 k5_numbers)) \Rightarrow (\forall X5. \\
& ((v1_matrix_1 X5) \wedge (m2_finseq_1 X5 (k3_finseq_2 (u1_struct_0 \\
& X2)))) \Rightarrow ((r1_tarski (k2_zfmisc_1 (k10_xtuple_0 X3) (k10_xtuple_0 \\
& X4)) (k2_matrix_1 X5)) \Rightarrow (r1_xxreal_0 (k8_matrix13 X2 (k1_matrix13 \\
& (u1_struct_0 X2) X5 X0 X1 X3 X4) (k8_matrix13 X2 X5)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_finset_1 X0) \wedge ((v1_setfam_1 X0) \wedge (m1_subset_1 \\
& X0 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (\exists X1.(v7_ordinal1 X1) \wedge \\
& (r1_tarski X0 (k2_finseq_1 X1)))
\end{aligned} \tag{2}$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_finset_1 X0) \wedge ((v1_setfam_1 X0) \wedge (m1_subset_1 \\
& X0 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (k5_matrix13 X0 = k14_finseq_1 \\
& X0)
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 \\
& (u1_struct_0 X0))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \tag{7}$$

Assume the following.

$$\forall X0.(l1_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_finset_1 X0) \wedge ((v1_setfam_1 X0) \wedge (m1_subset_1 \\
& X0 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (m2_finseq_2 (k5_matrix13 X0) \\
& k5_numbers (k4_finseq_2 (k5_card_1 X0) k5_numbers))
\end{aligned} \tag{9}$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (10)$$

Assume the following.

$$\forall X0.m2_finseq_1 (k14_finseq_1 X0) k5_numbers \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\ (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow (\forall X2.((v1_finset_1 \\ X2) \wedge ((v1_setfam_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k5_numbers)))) \Rightarrow \\ (\forall X3.((v1_finset_1 X3) \wedge ((v1_setfam_1 X3) \wedge (m1_subset_1 \\ X3 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (k6_matrix13 X0 X1 X2 X3 = k1_matrix13 \\ X0 X1 (k5_card_1 X2) (k5_card_1 X3) (k5_matrix13 X2) (k5_matrix13 \\ X3)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(\exists X1.(v7_ordinal1 X1) \wedge (r1_tarski X0 (k2_finseq_1 \\ X1))) \Rightarrow (\forall X1.(m2_finseq_1 X1 k5_numbers) \Rightarrow ((X1 = k14_finseq_1 \\ X0) \Leftrightarrow ((k10_xtuple_0 X1 = X0) \wedge (\forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3. \\ (v7_ordinal1 X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow (\forall X5.(\\ v7_ordinal1 X5) \Rightarrow (\neg (r1_xxreal_0 np_1 X2) \wedge ((\neg r1_xxreal_0 X3 X2) \wedge \\ ((r1_xxreal_0 X3 (k3_finseq_1 X1)) \wedge ((X4 = k1_funct_1 X1 X2) \wedge ((\\ X5 = k1_funct_1 X1 X3) \wedge (r1_xxreal_0 X5 X4)))))))))))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (14)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (\\ (v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v4_vectsp_1 \\ X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\ ((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 (u1_struct_0 \\ X0)))) \Rightarrow (\forall X2.((v1_finset_1 X2) \wedge ((v1_setfam_1 X2) \wedge (m1_subset_1 \\ X2 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (\forall X3.((v1_finset_1 X3) \wedge \\ ((v1_setfam_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 k5_numbers)))) \Rightarrow \\ ((r1_tarski (k2_zfmisc_1 X2 X3) (k2_matrix_1 X1)) \Rightarrow (r1_xxreal_0 \\ (k8_matrix13 X0 (k6_matrix13 (u1_struct_0 X0) X1 X2 X3)) (k8_matrix13 \\ X0 X1)))))) \end{aligned}$$