

t36_matrixr1

(TMGYRXj55uFQCC4kayiKjV4dWPta7L2vBjv)

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Let $v7_ordinal1 : \iota \Rightarrow o$ 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 $k1_numbers : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_matrix_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_matrix_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_vectsp_1 : \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v6_vectsp_1 : \iota \Rightarrow o$ 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. Let $k1_matrixr1 : \iota \Rightarrow \iota$ be given. Let $k2_matrixr1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\
 & ((\neg v2_struct_0 X2) \wedge ((\neg v6_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge \\
 & (v33_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 X2) \wedge ((v2_rlvect_1 \\
 & X2) \wedge ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge ((v4_vectsp_1 X2) \wedge \\
 & ((v5_vectsp_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow (\forall X3. \\
 & (m1_matrix_1 X3 (u1_struct_0 X2) X0 X1) \Rightarrow (k3_matrix_3 X2 X3 (k1_matrix_3 \\
 & X2 X0 X1) = X3)))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge \\
& (v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v4_vectsp_1 \\
& X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\
& ((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 (u1_struct_0 \\
& X0)))) \Rightarrow (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 \\
& (u1_struct_0 X0)))) \Rightarrow (((k3_finseq_1 X1 = k3_finseq_1 X2) \wedge (k1_matrix_1 \\
& X1 = k1_matrix_1 X2)) \Rightarrow (k3_matrix_3 X0 X1 X2 = k3_matrix_3 X0 X2 X1))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\
& (\neg v1_xboole_0 X2) \Rightarrow ((\neg r1_xxreal_0 X0 k1_xboole_0) \Rightarrow (\forall X3. \\
& (m1_matrix_1 X3 X2 X0 X1) \Rightarrow ((k3_finseq_1 X3 = X0) \wedge ((k1_matrix_1 \\
& X3 = X1) \wedge (k2_matrix_1 X3 = k2_zfmisc_1 (k2_finseq_1 X0) (k2_finseq_1 \\
& X1))))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\
& (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow ((\neg r1_xxreal_0 (k3_finseq_1 \\
& X1) k1_xboole_0) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow ((m1_matrix_1 \\
& X1 X0 (k3_finseq_1 X1) X2) \Leftrightarrow (X2 = k1_matrix_1 X1))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{5}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{6}$$

Assume the following.

$$\begin{aligned}
& (\neg v6_struct_0 k2_vectsp_1) \wedge ((v13_algstr_0 k2_vectsp_1) \wedge ((\\
& v33_algstr_0 k2_vectsp_1) \wedge ((v36_algstr_0 k2_vectsp_1) \wedge ((v2_rlvect_1 \\
& k2_vectsp_1) \wedge ((v3_rlvect_1 k2_vectsp_1) \wedge ((v4_rlvect_1 k2_vectsp_1) \wedge \\
& ((v3_group_1 k2_vectsp_1) \wedge ((v5_group_1 k2_vectsp_1) \wedge ((v3_vectsp_1 \\
& k2_vectsp_1) \wedge ((v5_vectsp_1 k2_vectsp_1) \wedge (v6_vectsp_1 k2_vectsp_1))))))))))
\end{aligned} \tag{7}$$

Assume the following.

$$(v36_algstr_0 k2_vectsp_1) \wedge (v4_vectsp_1 k2_vectsp_1) \tag{8}$$

Assume the following.

$$(\neg v2_struct_0 k2_vectsp_1) \wedge (v36_algstr_0 k2_vectsp_1) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 X1) \wedge (v7_ordinal1 X2))) \Rightarrow (\forall X3. (m1_matrix_1 X3 X0 X1 X2) \Rightarrow ((v1_matrix_1 X3) \wedge (m2_finseq_1 X3 (k3_finseq_2 X0)))) \quad (11)$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0. (l2_struct_0 X0) \Rightarrow (l1_struct_0 X0) \quad (13)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (14)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow ((v1_matrix_1 (k8_matrixr1 X0 X1)) \wedge (m2_finseq_1 (k8_matrixr1 X0 X1) (k3_finseq_2 k1_numbers))) \quad (15)$$

Assume the following.

$$(v36_algstr_0 k2_vectsp_1) \wedge (l6_algstr_0 k2_vectsp_1) \quad (16)$$

Assume the following.

$$\forall X0. ((v1_matrix_1 X0) \wedge (m1_finseq_1 X0 (k3_finseq_2 k1_numbers))) \Rightarrow ((v1_matrix_1 (k1_matrixr1 X0)) \wedge (m2_finseq_1 (k1_matrixr1 X0) (k3_finseq_2 (u1_struct_0 k2_vectsp_1)))) \quad (17)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \wedge ((v7_ordinal1 X1) \wedge (v7_ordinal1 X2))) \Rightarrow (m1_matrix_1 (k1_matrix_3 X0 X1 X2) (u1_struct_0 X0) X1 X2) \quad (18)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (v7_ordinal1 X1) \Rightarrow (k8_matrixr1 X0 X1 = k2_matrixr1 (k1_matrix_3 k2_vectsp_1 X0 X1))) \quad (19)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_matrix_1 X0) \wedge (m2_finseq_1 X0 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (k3_matrixr1 X0 X1 = k2_matrixr1 (k3_matrix_3 k2_vectsp_1 (k1_matrixr1 \\ & X0) (k1_matrixr1 X1)))) \end{aligned} \tag{20}$$

Assume the following.

$$\forall X0.((v1_matrix_1 X0) \wedge (m2_finseq_1 X0 (k3_finseq_2 (u1_struct_0 k2_vectsp_1)))) \Rightarrow (k2_matrixr1 X0 = X0) \tag{21}$$

Assume the following.

$$\forall X0.((v1_matrix_1 X0) \wedge (m2_finseq_1 X0 (k3_finseq_2 k1_numbers))) \Rightarrow (k1_matrixr1 X0 = X0) \tag{22}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & ((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (((k3_finseq_1 X2 = X0) \wedge (k1_matrix_1 X2 = X1)) \Rightarrow ((r1_xxreal_0 X0 \\ & k6_numbers) \vee ((k3_matrixr1 X2 (k8_matrixr1 X0 X1) = X2) \wedge (k3_matrixr1 \\ & (k8_matrixr1 X0 X1) X2 = X2)))))) \end{aligned}$$