

t26_matrix_6

(TMZ1bNStFSdfXyQmJWN8WBhZsv35QMHUDo)

October 27, 2020

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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ 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 $k4_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ 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 $l2_algstr_0 : \iota \Rightarrow o$ 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 $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\\ & \forall X2.(m1_matrix_1 X2 X1 X0 X0) \Rightarrow ((k3_finseq_1 X2 = X0) \wedge ((k1_matrix_1 \\ & X2 = X0) \wedge (k2_matrix_1 X2 = k2_zfmisc_1 (k2_finseq_1 X0) (k2_finseq_1 \\ & X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1 X0) \wedge ((\neg v1_xboole_0 \\ & X1) \wedge (m1_matrix_1 X2 X1 X0 X0))) \Rightarrow (k5_matrix_1 X0 X1 X2 = k4_matrix_1 \\ & X1 X2) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge(((\neg v2_struct_0 \\ & X1)\wedge((\neg v6_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge((v33_algstr_0\ X1)\wedge \\ & ((v3_group_1\ X1)\wedge((v5_group_1\ X1)\wedge((v2_rlvect_1\ X1)\wedge((v3_rlvect_1 \\ & X1)\wedge((v4_rlvect_1\ X1)\wedge((v4_vectsp_1\ X1)\wedge((v5_vectsp_1\ X1)\wedge \\ & (l6_algstr_0\ X1))))))))))\wedge(m1_matrix_1\ X2\ (u1_struct_0\ X1) \\ & X0\ X0)))\Rightarrow(k1_matrix_6\ X0\ X1\ X2 = k2_matrix_3\ X1\ X2) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0)\wedge(l1_struct_0\ X0))\Rightarrow(\neg v1_xboole_0\ (u1_struct_0\ X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0\ X0)\wedge((v7_ordinal1 \\ & X1)\wedge(v7_ordinal1\ X2)))\Rightarrow(\forall X3.(m1_matrix_1\ X3\ X0\ X1\ X2)\Rightarrow \\ & ((v1_matrix_1\ X3)\wedge(m2_finseq_1\ X3\ (k3_finseq_2\ X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(l6_algstr_0\ X0)\Rightarrow((l2_algstr_0\ X0)\wedge(l5_algstr_0\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l2_algstr_0\ X0)\Rightarrow((l2_struct_0\ X0)\wedge(l1_algstr_0\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_algstr_0\ X0)\Rightarrow(l1_struct_0\ X0) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((\neg v1_xboole_0 \\ & X1)\wedge(m1_matrix_1\ X2\ X1\ X0\ X0)))\Rightarrow(m1_matrix_1\ (k5_matrix_1\ X0\ X1 \\ & X2)\ X1\ X0\ X0) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge(((\neg v2_struct_0 \\ & X1)\wedge((\neg v6_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge((v33_algstr_0\ X1)\wedge \\ & ((v3_group_1\ X1)\wedge((v5_group_1\ X1)\wedge((v2_rlvect_1\ X1)\wedge((v3_rlvect_1 \\ & X1)\wedge((v4_rlvect_1\ X1)\wedge((v4_vectsp_1\ X1)\wedge((v5_vectsp_1\ X1)\wedge \\ & (l6_algstr_0\ X1))))))))))\wedge(m1_matrix_1\ X2\ (u1_struct_0\ X1) \\ & X0\ X0)))\Rightarrow(m1_matrix_1\ (k1_matrix_6\ X0\ X1\ X2)\ (u1_struct_0\ X1)\ X0 \\ & X0) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\
& (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow (\forall X2.((v1_matrix_1 \\
& X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 X0))) \Rightarrow ((X2 = k4_matrix_1 X0 X1) \Leftrightarrow \\
& ((k3_finseq_1 X2 = k1_matrix_1 X1) \wedge (\forall X3.(v7_ordinal1 \\
& X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow ((k4_tarski X3 X4 \in k2_matrix_1 \\
& X2) \Leftrightarrow (k4_tarski X4 X3 \in k2_matrix_1 X1)))) \wedge (\forall X3.(v7_ordinal1 \\
& X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow ((k4_tarski X4 X3 \in k2_matrix_1 \\
& X1) \Rightarrow (k3_matrix_1 X0 X2 X3 X4 = k3_matrix_1 X0 X1 X4 X3))))))))) \\
& \hspace{15em} (11)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (\\
& (v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v4_vectsp_1 \\
& X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\
& ((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 (u1_struct_0 \\
& X0)))) \Rightarrow (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 \\
& (u1_struct_0 X0)))) \Rightarrow ((X2 = k2_matrix_3 X0 X1) \Leftrightarrow ((k3_finseq_1 X2 = \\
& k3_finseq_1 X1) \wedge ((k1_matrix_1 X2 = k1_matrix_1 X1) \wedge (\forall X3. \\
& (v7_ordinal1 X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow ((k4_tarski X3 \\
& X4 \in k2_matrix_1 X1) \Rightarrow (k3_matrix_1 (u1_struct_0 X0) X2 X3 X4 = k4_algstr_0 \\
& X0 (k3_matrix_1 (u1_struct_0 X0) X1 X3 X4)))))))))) \\
& \hspace{15em} (12)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (\\
& (v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v4_vectsp_1 \\
& X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\
& (v7_ordinal1 X1) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 X0) \\
& X1 X1) \Rightarrow (k5_matrix_1 X1 (u1_struct_0 X0) (k1_matrix_6 X1 X0 X2) = \\
& k1_matrix_6 X1 X0 (k5_matrix_1 X1 (u1_struct_0 X0) X2))))
\end{aligned}$$