

t3_matrix16

(TMQDFPPFyerU6PecijjFdxy5GZ42TSBz18)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v3_matrix16 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_matrix16 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_int_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_matrix16 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v7_ordinal1 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_matrix_1 X2 X1 X0 X0))) \Rightarrow (k5_matrix_1 X0 X1 X2 = k4_matrix_1 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (4)$$

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.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge \\ (v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v7_ordinal1 X0)\wedge((\neg v1_xboole_0 \\ X1)\wedge(m1_matrix_1 X2 X1 X0 X0)))\Rightarrow(m1_matrix_1 (k5_matrix_1 X0 X1 \\ X2) X1 X0 X0) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_matrix_1 X1)\wedge \\ (m2_finseq_1 X1 (k3_finseq_2 X0)))\Rightarrow(\forall X2.((v1_matrix_1 \\ X2)\wedge(m2_finseq_1 X2 (k3_finseq_2 X0)))\Rightarrow((X2 = k4_matrix_1 X0 X1)\Leftrightarrow \\ ((k3_finseq_1 X2 = k1_matrix_1 X1)\wedge((\forall X3.(v7_ordinal1 \\ X3)\Rightarrow(\forall X4.(v7_ordinal1 X4)\Rightarrow((k4_tarski X3 X4 \in k2_matrix_1 \\ X2)\Leftrightarrow(k4_tarski X4 X3 \in k2_matrix_1 X1))))\wedge(\forall X3.(v7_ordinal1 \\ X3)\Rightarrow(\forall X4.(v7_ordinal1 X4)\Rightarrow((k4_tarski X4 X3 \in k2_matrix_1 \\ X1)\Rightarrow(k3_matrix_1 X0 X2 X3 X4 = k3_matrix_1 X0 X1 X4 X3)))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_matrix_1 X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 \\ X0)))\Rightarrow((v3_matrix16 X1 X0)\Leftrightarrow(\exists X2.(m2_finseq_1 X2 X0)\wedge(\\ (k3_finseq_1 X2 = k3_finseq_1 X1)\wedge(r2_matrix16 X0 X1 X2)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_matrix_1 X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 \\ X0)))\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge((v1_funct_1 X2)\wedge(v1_finseq_1 \\ X2)))\Rightarrow((r2_matrix16 X0 X1 X2)\Leftrightarrow((k3_finseq_1 X2 = k3_finseq_1 X1)\wedge \\ (\forall X3.(v7_ordinal1 X3)\Rightarrow(\forall X4.(v7_ordinal1 X4)\Rightarrow(\\ (k4_tarski X3 X4 \in k2_matrix_1 X1)\Rightarrow(k3_matrix_1 X0 X1 X3 X4 = k1_funct_1 \\ X2 (k2_xcmplx_0 (k6_int_1 (k6_xcmplx_0 X3 X4) (k3_finseq_1 X2)) \\ np_1)))))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_matrix_1 X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 \\ X0)))\Rightarrow((v1_matrix16 X1 X0)\Leftrightarrow(\exists X2.(m2_finseq_1 X2 X0)\wedge(\\ (k3_finseq_1 X2 = k1_matrix_1 X1)\wedge(r1_matrix16 X0 X1 X2)))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 \\
& X0))) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_finseq_1 \\
& X2))) \Rightarrow ((r1_matrix16 X0 X1 X2) \Leftrightarrow ((k3_finseq_1 X2 = k1_matrix_1 X1) \wedge \\
& (\forall X3. (v7_ordinal1 X3) \Rightarrow (\forall X4. (v7_ordinal1 X4) \Rightarrow (\\
& (k4_tarski X3 X4 \in k2_matrix_1 X1) \Rightarrow (k3_matrix_1 X0 X1 X3 X4 = k1_funct_1 \\
& X2 (k2_xcmplx_0 (k6_int_1 (k6_xcmplx_0 X4 X3) (k3_finseq_1 X2)) \\
& np_1))))))))))
\end{aligned} \tag{12}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{13}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1. (\neg v1_xboole_0 \\
& X1) \Rightarrow (\forall X2. (m1_matrix_1 X2 X1 X0 X0) \Rightarrow ((v1_matrix16 X2 X1) \Rightarrow \\
& ((r1_xxreal_0 X0 k6_numbers) \vee (v3_matrix16 (k5_matrix_1 X0 X1 \\
& X2) X1))))))
\end{aligned}$$