

t64_matrixr2 (TMWpfSY-
TyxcM5V2Y2PCiQ1F463ZfBLaJD2B)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k5_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k4_matrixr2 : \iota \Rightarrow \iota$ 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 $np_1 : \iota$ be given. Let $k6_numbers : \iota$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ 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 $k2_matrixr1 : \iota \Rightarrow \iota$ be given. Let $k12_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_vectsp_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow ((\forall X1.(m1_subset_1 \\ & X1 k5_numbers) \Rightarrow ((k4_tarski X1 X1 \in k2_matrix_1 (k4_matrixr2 X0)) \Rightarrow \\ & (k3_matrix_1 k1_numbers (k4_matrixr2 X0) X1 X1 = np_1))) \wedge (\forall X1. \\ & (m1_subset_1 X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow \\ & ((k4_tarski X1 X2 \in k2_matrix_1 (k4_matrixr2 X0)) \Rightarrow ((X1 = X2) \vee (k3_matrix_1 \\ & k1_numbers (k4_matrixr2 X0) X1 X2 = k6_numbers)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow \\ & (\forall X2.(m1_matrix_1 X2 X0 X1 X1) \Rightarrow (k5_matrix_1 X1 X0 (k5_matrix_1 \\ & X1 X0 X2) = X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (\neg v1_xboole_0 X2) \Rightarrow (\forall X3.(m1_matrix_1 X3 X2 X0 X1) \Rightarrow (\forall X4. \\ & (m1_matrix_1 X4 X2 X0 X1) \Rightarrow ((\forall X5.(v7_ordinal1 X5) \Rightarrow (\forall X6. \\ & (v7_ordinal1 X6) \Rightarrow ((k4_tarski X5 X6 \in k2_matrix_1 X3) \Rightarrow (k3_matrix_1 \\ & X2 X3 X5 X6 = k3_matrix_1 X2 X4 X5 X6)))) \Rightarrow (X3 = X4)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(\neg v1_xboole_0\ X1) \Rightarrow (\\ & \forall X2.(m1_matrix_1\ X2\ X1\ X0\ X0) \Rightarrow ((k3_finseq_1\ X2 = X0) \wedge ((k1_matrix_1 \\ & X2 = X0) \wedge (k2_matrix_1\ X2 = k2_zfmisc_1\ (k2_finseq_1\ X0)\ (k2_finseq_1 \\ & X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1\ X0\ X1) \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0) \wedge ((\neg v1_xboole_0 \\ & X1) \wedge (m1_matrix_1\ X2\ X1\ X0\ X0))) \Rightarrow (k5_matrix_1\ X0\ X1\ X2 = k4_matrix_1 \\ & X1\ X2) \end{aligned} \quad (7)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (8)$$

Assume the following.

$$\neg v1_xboole_0\ k1_numbers \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0\ X0) \wedge ((v7_ordinal1 \\ & X1) \wedge (v7_ordinal1\ X2))) \Rightarrow (\forall X3.(m1_matrix_1\ X3\ X0\ X1\ X2) \Rightarrow \\ & ((v1_matrix_1\ X3) \wedge (m2_finseq_1\ X3\ (k3_finseq_2\ X0)))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0) \wedge ((\neg v1_xboole_0 \\ & X1) \wedge (m1_matrix_1\ X2\ X1\ X0\ X0))) \Rightarrow (m1_matrix_1\ (k5_matrix_1\ X0\ X1 \\ & X2)\ X1\ X0\ X0) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (m1_matrix_1\ (k4_matrixr2\ X0)\ k1_numbers\ X0\ X0) \quad (12)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\
& (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow (\forall X2.((v1_matrix_1 \\
& X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 X0))) \Rightarrow ((X2 = k4_matrix_1 X0 X1) \Leftrightarrow \\
& ((k3_finseq_1 X2 = k1_matrix_1 X1) \wedge ((\forall X3.(v7_ordinal1 \\
& X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow ((k4_tarski X3 X4 \in k2_matrix_1 \\
& X2) \Leftrightarrow (k4_tarski X4 X3 \in k2_matrix_1 X1)))) \wedge (\forall X3.(v7_ordinal1 \\
& X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow ((k4_tarski X4 X3 \in k2_matrix_1 \\
& X1) \Rightarrow (k3_matrix_1 X0 X2 X3 X4 = k3_matrix_1 X0 X1 X4 X3)))))))))) \\
& \tag{13}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (k4_matrixr2 X0 = k2_matrixr1 \\
& (k12_matrix_1 k2_vectsp_1 X0)) \\
& \tag{14}
\end{aligned}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Leftrightarrow (X0 \in k4_ordinal1) \tag{15}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\
& (v7_ordinal1 X1)) \\
& \tag{16}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (k5_matrix_1 X0 k1_numbers \\
& (k4_matrixr2 X0) = k4_matrixr2 X0)
\end{aligned}$$