

t39_matrixj1 (TMKF- bJD2T9uMypBP2vheHzSowWmB4hqouTz)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k13_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_matrixj1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_wsierp_1 : \iota \Rightarrow \iota$ be given. Let $k10_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\
& (\forall X2. ((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 X0))) \Rightarrow \\
& (\forall X3. ((v1_matrixj1 X3 X0) \wedge (m2_finseq_1 X3 (k3_finseq_2 \\
& (k3_finseq_2 X0)))) \Rightarrow (X2 = k6_matrix13 X0 (k13_matrixj1 X0 X1 (k3_matrixj1 \\
& X0 X3 (k4_matrixj1 X0 X2))) (k7_subset_1 k5_numbers (k2_finseq_1 \\
& (k2_nat_1 (k3_finseq_1 X2) (k2_wsierp_1 (k10_matrixj1 X0 X3)))) \\
& (k2_finseq_1 (k2_wsierp_1 (k10_matrixj1 X0 X3)))) (k7_subset_1 \\
& k5_numbers (k2_finseq_1 (k2_nat_1 (k1_matrix_1 X2) (k2_wsierp_1 \\
& (k11_matrixj1 X0 X3)))) (k2_finseq_1 (k2_wsierp_1 (k11_matrixj1 \\
& X0 X3)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\
& (\forall X2. ((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 X0))) \Rightarrow \\
& (\forall X3. ((v1_matrixj1 X3 X0) \wedge (m2_finseq_1 X3 (k3_finseq_2 \\
& (k3_finseq_2 X0)))) \Rightarrow (X2 = k6_matrix13 X0 (k13_matrixj1 X0 X1 (k3_matrixj1 \\
& X0 (k4_matrixj1 X0 X2) X3) (k2_finseq_1 (k3_finseq_1 X2) (k2_finseq_1 \\
& (k1_matrix_1 X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(((v1_matrix_1 \\ X1)\wedge(m1_finseq_1 X1 (k3_finseq_2 X0)))\wedge((v1_matrix_1 X2)\wedge(m1_finseq_1 \\ X2 (k3_finseq_2 X0))))))\Rightarrow(k5_matrixj1 X0 X1 X2 = k10_finseq_1 X1 \\ X2) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((v1_matrix_1 X1)\wedge \\ (m1_finseq_1 X1 (k3_finseq_2 X0))))\Rightarrow(k4_matrixj1 X0 X1 = k5_finseq_1 \\ X1) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(((v1_matrixj1 \\ X1 X0)\wedge(m1_finseq_1 X1 (k3_finseq_2 (k3_finseq_2 X0))))\wedge((v1_matrixj1 \\ X2 X0)\wedge(m1_finseq_1 X2 (k3_finseq_2 (k3_finseq_2 X0))))))\Rightarrow(k3_matrixj1 \\ X0 X1 X2 = k7_finseq_1 X1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((v1_matrix_1 X1)\wedge \\ (m1_finseq_1 X1 (k3_finseq_2 X0))))\Rightarrow((v1_matrixj1 (k4_matrixj1 \\ X0 X1) X0)\wedge(m2_finseq_1 (k4_matrixj1 X0 X1) (k3_finseq_2 (k3_finseq_2 \\ X0)))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k10_finseq_1 X0 X1 = k7_finseq_1 (k9_finseq_1 X0) (k9_finseq_1 X1) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow \\ (\forall X2.(m1_subset_1 X2 X0)\Rightarrow(\forall X3.((v1_matrix_1 X3)\wedge \\ (m2_finseq_1 X3 (k3_finseq_2 X0)))\Rightarrow(\forall X4.((v1_matrix_1 \\ X4)\wedge(m2_finseq_1 X4 (k3_finseq_2 X0)))\Rightarrow(\forall X5.((v1_matrix_1 \\ X5)\wedge(m2_finseq_1 X5 (k3_finseq_2 X0)))\Rightarrow(\forall X6.((v1_matrix_1 \\ X6)\wedge(m2_finseq_1 X6 (k3_finseq_2 X0)))\Rightarrow(((k3_finseq_1 X3 = k3_finseq_1 \\ X5)\wedge((k1_matrix_1 X3 = k1_matrix_1 X5)\wedge((k3_finseq_1 X4 = k3_finseq_1 \\ X6)\wedge((k1_matrix_1 X4 = k1_matrix_1 X6)\wedge(k13_matrixj1 X0 X1 (k5_matrixj1 \\ X0 X3 X4) = k13_matrixj1 X0 X2 (k5_matrixj1 X0 X5 X6))))))\Rightarrow((X3 = X5)\wedge \\ (X4 = X6)))))))))) \end{aligned}$$