

t58_matrixr2 (TMRYWs- dapU5XxLJuxx7bRY3BcLFVdD3vvfc)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k6_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_matrixr1 : \iota \Rightarrow \iota$ be given. Let $k11_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_matrixr1 : \iota \Rightarrow \iota$ be given. Let $k9_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k8_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_matrix_1 \\ X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow ((k1_matrix_1 \\ X1 = k3_finseq_1 X0) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X0) k6_numbers) \vee \\ (k3_finseq_1 (k11_matrixr1 X1 X0) = k3_finseq_1 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_matrix_1 \\ X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow (\neg(\neg r1_xxreal_0 \\ (k3_finseq_1 X1) k6_numbers) \wedge ((\neg r1_xxreal_0 (k1_matrix_1 X1) \\ k6_numbers) \wedge (((k1_matrix_1 X1 = k3_finseq_1 X0) \vee (k3_finseq_1 \\ (k4_matrix_1 k1_numbers X1) = k3_finseq_1 X0)) \wedge (k11_matrixr1 \\ X1 X0 \neq k12_matrixr1 (k4_matrix_1 k1_numbers X1) X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow ((\neg r1_xxreal_0 (k3_finseq_1 \\ X0) k6_numbers) \Rightarrow ((k4_matrix_1 k1_numbers (k10_matrixr1 X0) = \\ k9_matrixr1 X0) \wedge (k4_matrix_1 k1_numbers (k9_matrixr1 X0) = k10_matrixr1 \\ X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_matrix_1 \\ & X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow ((\neg r1_xreal_0 \\ & (k3_finseq_1 X0) k6_numbers) \Rightarrow ((X1 = k9_matrixr1 X0) \Leftrightarrow ((k9_matrix_1 \\ & k1_numbers X1 np_1 = X0) \wedge (k1_matrix_1 X1 = np_1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_matrix_1 X0) \wedge (m2_finseq_1 X0 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & ((k1_matrix_1 X1 = k3_finseq_1 X2) \Rightarrow ((X0 = k6_matrixr1 X1 X2) \Leftrightarrow ((\\ & k3_finseq_1 X0 = k3_finseq_1 X1) \wedge ((k1_matrix_1 X0 = k1_matrix_1 \\ & X2) \wedge (\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow ((X3 \in \\ & k2_finseq_1 (k3_finseq_1 X0)) \Rightarrow (k8_matrix_1 k1_numbers X0 X3 = \\ & k12_matrixr1 X2 (k8_matrix_1 k1_numbers X1 X3)))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\ & (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow ((\neg r1_xreal_0 (k1_matrix_1 \\ & X1) k1_xboole_0) \Rightarrow ((k3_finseq_1 (k4_matrix_1 X0 X1) = k1_matrix_1 \\ & X1) \wedge (k1_matrix_1 (k4_matrix_1 X0 X1) = k3_finseq_1 X1)))) \end{aligned} \quad (8)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k1_numbers) \Rightarrow ((v1_matrix_1 (k9_matrixr1 X0)) \wedge (m2_finseq_1 (k9_matrixr1 X0) (k3_finseq_2 k1_numbers))) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_matrix_1 X0) \wedge (m1_finseq_1 X0 (k3_finseq_2 \\ & k1_numbers))) \wedge ((v1_matrix_1 X1) \wedge (m1_finseq_1 X1 (k3_finseq_2 \\ & k1_numbers)))) \Rightarrow ((v1_matrix_1 (k6_matrixr1 X0 X1)) \wedge (m2_finseq_1 \\ & (k6_matrixr1 X0 X1) (k3_finseq_2 k1_numbers))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((v1_matrix_1 X1)\wedge (m1_finseq_1 X1 (k3_finseq_2 X0))))\Rightarrow((v1_matrix_1 (k4_matrix_1 X0 X1))\wedge(m2_finseq_1 (k4_matrix_1 X0 X1) (k3_finseq_2 X0))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_matrix_1 X0)\wedge(m1_finseq_1 X0 (k3_finseq_2 k1_numbers)))\wedge(m1_finseq_1 X1 k1_numbers))\Rightarrow(m2_finseq_1 (k12_matrixr1 X0 X1) k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k1_numbers)\Rightarrow((v1_matrix_1 (k10_matrixr1 X0))\wedge(m2_finseq_1 (k10_matrixr1 X0) (k3_finseq_2 k1_numbers))) \quad (14)$$

Assume the following.

$$\forall X0.(((v1_matrix_1 X0)\wedge(m2_finseq_1 X0 (k3_finseq_2 k1_numbers)))\Rightarrow (\forall X1.(m2_finseq_1 X1 k1_numbers)\Rightarrow(k11_matrixr1 X0 X1 = k9_matrix_1 k1_numbers (k6_matrixr1 X0 (k9_matrixr1 X1) np_1))) \quad (15)$$

Assume the following.

$$\forall X0.(m2_finseq_1 X0 k1_numbers)\Rightarrow(\forall X1.(((v1_matrix_1 X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 k1_numbers)))\Rightarrow((X1 = k10_matrixr1 X0)\Leftrightarrow((k1_matrix_1 X1 = k3_finseq_1 X0)\wedge((k3_finseq_1 X1 = np_1)\wedge (\forall X2.(v7_ordinal1 X2)\Rightarrow((X2 \in k4_finseq_1 X0)\Rightarrow(k3_matrix_1 k1_numbers X1 np_1 X2 = k1_seq_1 X0 X2))))))) \quad (16)$$

Theorem 1

$$\forall X0.(m2_finseq_1 X0 k1_numbers)\Rightarrow(\forall X1.(((v1_matrix_1 X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 k1_numbers)))\Rightarrow((k1_matrix_1 X1 = k3_finseq_1 X0)\Rightarrow((r1_xxreal_0 (k3_finseq_1 X0) k6_numbers)\vee ((r1_xxreal_0 (k3_finseq_1 X1) k6_numbers)\vee(k6_matrixr1 X1 (k9_matrixr1 X0) = k9_matrixr1 (k11_matrixr1 X1 X0)))))))$$