

t56_matrixr2 (TMKzexpTg- wzFrfMzFLmDXViH2iLRLHGc47U)

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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 $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k6_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_matrixr1 : \iota \Rightarrow \iota$ be given. Let $k12_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_matrix_1 \\ & X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow ((X1 = k10_matrixr1 \\ & X0) \Leftrightarrow ((k8_matrix_1 k1_numbers X1 np_1 = X0) \wedge (k3_finseq_1 X1 = np_1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_matrix_1 X0) \wedge (m2_finseq_1 X0 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & (\forall X2.((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 k1_numbers))) \Rightarrow \\ & ((k1_matrix_1 X1 = k3_finseq_1 X2) \Rightarrow ((X0 = k6_matrixr1 X1 X2) \Leftrightarrow ((\\ & k3_finseq_1 X0 = k3_finseq_1 X1) \wedge ((k1_matrix_1 X0 = k1_matrix_1 \\ & X2) \wedge (\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow (\forall X4. \\ & (m2_subset_1 X4 k1_numbers k5_numbers) \Rightarrow ((k4_tarski X3 X4 \in k2_matrix_1 \\ & X0) \Rightarrow (k3_matrix_1 k1_numbers X0 X3 X4 = k22_rvsum_1 (k8_matrix_1 \\ & k1_numbers X1 X3) (k9_matrix_1 k1_numbers X2 X4)))))))))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1_matrix_1 X0)\wedge(m1_finseq_1 X0 (k3_finseq_2 \\ k1_numbers)))\wedge((v1_matrix_1 X1)\wedge(m1_finseq_1 X1 (k3_finseq_2 \\ k1_numbers))))\Rightarrow((v1_matrix_1 (k6_matrixr1 X0 X1))\wedge(m2_finseq_1 \\ (k6_matrixr1 X0 X1) (k3_finseq_2 k1_numbers))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1_matrix_1 X0)\wedge(m1_finseq_1 X0 (k3_finseq_2 \\ k1_numbers)))\wedge(m1_finseq_1 X1 k1_numbers))\Rightarrow(m2_finseq_1 (k12_matrixr1 \\ X0 X1) k1_numbers) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_finseq_1 X0 k1_numbers)\Rightarrow((v1_matrix_1 (k10_matrixr1 \\ X0))\wedge(m2_finseq_1 (k10_matrixr1 X0) (k3_finseq_2 k1_numbers))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_matrix_1 X0)\wedge(m2_finseq_1 X0 (k3_finseq_2 k1_numbers)))\Rightarrow \\ (\forall X1.(m2_finseq_1 X1 k1_numbers)\Rightarrow(k12_matrixr1 X0 X1 = \\ k8_matrix_1 k1_numbers (k6_matrixr1 (k10_matrixr1 X1) X0) np_1)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers)\Rightarrow(\forall X1.((v1_matrix_1 \\ X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 k1_numbers)))\Rightarrow((X1 = k10_matrixr1 \\ X0)\Leftrightarrow((k1_matrix_1 X1 = k3_finseq_1 X0)\wedge((k3_finseq_1 X1 = np_1)\wedge \\ (\forall X2.(v7_ordinal1 X2)\Rightarrow((X2 \in k4_finseq_1 X0)\Rightarrow(k3_matrix_1 \\ k1_numbers X1 np_1 X2 = k1_seq_1 X0 X2)))))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers)\Rightarrow(\forall X1.((v1_matrix_1 \\ X1)\wedge(m2_finseq_1 X1 (k3_finseq_2 k1_numbers)))\Rightarrow((k3_finseq_1 \\ X1 = k3_finseq_1 X0)\Rightarrow(k6_matrixr1 (k10_matrixr1 X0) X1 = k10_matrixr1 \\ (k12_matrixr1 X1 X0)))) \end{aligned}$$