

t29_matrix_9
(TMM4dY2UiZJuk5aRZz2hbjwLu5cXQZWRf5p)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k13_matrix_2 : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k3_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_group_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funct_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_matrix_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_matrix_2 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_matrix_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_matrix_2 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k11_matrix_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$k2_funct_1 (k3_finseq_4 k5_numbers np_2 np_3 np_1) = k3_finseq_4 k5_numbers np_3 np_1 np_2 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m1_matrix_2 X1 (k12_matrix_2 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k13_matrix_2 X0))) \Rightarrow (((X2 = X1) \wedge (r1_xxreal_0 np_1 X0)) \Rightarrow (k3_matrix_7 X0 X1 = k2_group_1 (k13_matrix_2 X0) X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$r1_xxreal_0 np_1 np_3 \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v3_matrix_2 X0)) \Rightarrow (\forall X1. (m1_matrix_2 X1 X0) \Leftrightarrow (m1_subset_1 X1 X0)) \quad (5)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(m1_subset_1 X1 (k12_matrix_2 X0)))\Rightarrow(k3_matrix_7 X0 X1 = k2_funct_1 X1) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow((\neg v1_xboole_0 (k12_matrix_2 X0))\wedge (v3_matrix_2 (k12_matrix_2 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow((v15_algstr_0 (k13_matrix_2 X0))\wedge (l3_algstr_0 (k13_matrix_2 X0))) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.((v15_algstr_0 X1)\wedge \\ & (l3_algstr_0 X1))\Rightarrow((X1 = k13_matrix_2 X0)\Leftrightarrow((u1_struct_0 X1 = k12_matrix_2 \\ & X0)\wedge(\forall X2.(m1_matrix_2 X2 (k12_matrix_2 X0))\Rightarrow(\forall X3. \\ & (m1_matrix_2 X3 (k12_matrix_2 X0))\Rightarrow(k1_binop_1 (u2_algstr_0 \\ & X1) X2 X3 = k1_partfun1 (k2_finseq_1 (k11_matrix_2 (k12_matrix_2 \\ & X0))) (k2_finseq_1 (k11_matrix_2 (k12_matrix_2 X0))) (k2_finseq_1 \\ & (k11_matrix_2 (k12_matrix_2 X0))) (k2_finseq_1 (k11_matrix_2 \\ & (k12_matrix_2 X0))) X2 X3)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k13_matrix_2 np_3)))\Rightarrow \\ & ((X0 = k3_finseq_4 k5_numbers np_2 np_3 np_1)\Rightarrow(k2_group_1 (\\ & k13_matrix_2 np_3) X0 = k3_finseq_4 k5_numbers np_3 np_1 np_2)) \end{aligned}$$