

t11_matrix_3

(TMNkgAVi8dtmda2iqvjHAwWXbF5eMy7o9UH)

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Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v2_struct.0 : \iota \Rightarrow o$ be given. Let $v13_algstr.0 : \iota \Rightarrow o$ be given. Let $v3_rlvect.1 : \iota \Rightarrow o$ be given. Let $v4_rlvect.1 : \iota \Rightarrow o$ be given. Let $l2_algstr.0 : \iota \Rightarrow o$ be given. Let $k4_rlvect.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $k4_struct.0 : \iota \Rightarrow \iota$ be given. Let $k1_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k7_funcop.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finseq.2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_finseq.1 : \iota \Rightarrow o$ be given. Let $k4_finseq.1 : \iota \Rightarrow \iota$ be given. Let $m2_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct.0 : \iota \Rightarrow o$ be given. Let $m1_finseq.2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_struct.0 : \iota \Rightarrow o$ be given. Let $l1_algstr.0 : \iota \Rightarrow o$ be given. Let $k4_finseq.2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq.1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X1 \in X0) \Rightarrow (k1_funct.1 (k2_funcop.1 X0 X2) X1 = X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (k9_xtuple.0 (k2_funcop.1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple.0 (k2_funcop.1 X0 X1)) (k1_tarski X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop.1 X0 X1 = k2_funcop.1 X0 X1 \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole.0 X0) \wedge (v7_ordinal1 X1) \wedge (m1_subset.1 X2 X0)) \Rightarrow (k5_finseq.2 X0 X1 X2 = k2_finseq.2 X1 X2) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_rlvect_1 \\ X0) \wedge ((v4_rlvect_1 X0) \wedge (l2_algstr_0 X0)))))) \Rightarrow (\forall X1.(m2_finseq_1 \\ X1 (u1_struct_0 X0)) \Rightarrow ((\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow \\ ((X2 \in k4_finseq_1 X1) \Rightarrow (k1_funct_1 X1 X2 = k4_struct_0 X0))) \Rightarrow (k4_rlvect_1 \\ X0 X1 = k4_struct_0 X0))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Rightarrow (m2_finseq_1 X2 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0) \Rightarrow (l1_struct_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2.((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 \\ X1) \wedge (m1_subset_1 X2 X0))) \Rightarrow (m2_finseq_2 (k5_finseq_2 X0 X1 X2) \\ X0 (k4_finseq_2 X1 X0)) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(l2_struct_0 X0) \Rightarrow (m1_subset_1 (k4_struct_0 X0) (u1_struct_0 X0)) \quad (13)$$

Assume the following.

$$\forall X0. \forall X1.(v7_ordinal1 X0) \Rightarrow (m1_finseq_2 (k4_finseq_2 X0 X1) X1) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1.(v7_ordinal1 X0) \Rightarrow ((v1_relat_1 (k2_finseq_2 \\ X0 X1)) \wedge ((v1_funct_1 (k2_finseq_2 X0 X1)) \wedge (v1_finseq_1 (k2_finseq_2 \\ X0 X1)))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.k2_finseq_2\ X0\ X1 = k7_funcop_1\ (k2_finseq_1\ X0)\ X1) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \quad (17)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge ((v13_algstr_0\ X1) \wedge ((v3_rlvect_1\ X1) \wedge ((v4_rlvect_1\ X1) \wedge (l2_algstr_0\ X1)))))) \Rightarrow (k4_rlvect_1\ X1\ (k5_finseq_2\ (u1_struct_0\ X1)\ X0\ (k4_struct_0\ X1)) = k4_struct_0\ X1))$$