

t2_matrix_1

(TMcDneKTQvPfcjnj8FL6Mw6ukdJAau2mS2C)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $k2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k3_finseq_1 X0 = k1_card_1 X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1\ X0)\Rightarrow((v1_relat_1\ (k2_finseq_2\ X0\ X1))\wedge((v1_funct_1\ (k2_finseq_2\ X0\ X1))\wedge((v3_card_1\ (k2_finseq_2\ X0\ X1)\ X0)\wedge(v1_finseq_1\ (k2_finseq_2\ X0\ X1)))))) \quad (7)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0\ (k1_tarski\ X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1\ X0)\Rightarrow((v1_relat_1\ (k2_finseq_2\ X0\ X1))\wedge((v1_funct_1\ (k2_finseq_2\ X0\ X1))\wedge(v1_finseq_1\ (k2_finseq_2\ X0\ X1)))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(v3_card_1\ X1\ X0)\Leftrightarrow(k1_card_1\ X1 = X0) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.k2_finseq_2\ X0\ X1 = k7_funcop_1\ (k2_finseq_1\ X0)\ X1) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(X2 = X0)) \quad (12)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow((v1_matrix_1\ X0)\Leftrightarrow(\exists X1.(v7_ordinal1\ X1)\wedge(\forall X2.\neg(X2 \in k10_xtuple_0\ X0)\wedge(\forall X3.((v1_relat_1\ X3)\wedge((v1_funct_1\ X3)\wedge(v1_finseq_1\ X3))))\Rightarrow(\neg(X3 = X2)\wedge(k3_finseq_1\ X3 = X1)))))) \quad (13)$$

Theorem 1

$$\forall X0.\forall X1.(v7_ordinal1\ X1)\Rightarrow(\forall X2.(v7_ordinal1\ X2)\Rightarrow(v1_matrix_1\ (k2_finseq_2\ X1\ (k2_finseq_2\ X2\ X0))))$$