

t54_matrix13

(TMKkJhzXcy6yUzyjw3yDLG9Crjbht4PgV7G)

October 27, 2020

Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_matrix13 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((r1_tarski X0 (k10_xtuple_0 X1)) \Rightarrow (k7_relat_1 X1 (k8_relat_1 X1 X0) = X0)) \quad (1)$$

Assume the following.

$$\forall X0. ((v1_finset_1 X0) \wedge ((v1_setfam_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (\exists X1. (v7_ordinal1 X1) \wedge (r1_tarski X0 (k2_finseq_1 X1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (((r1_tarski X0 (k2_finseq_1 X2)) \wedge (r1_tarski X1 (k4_finseq_1 (k14_finseq_1 X0)))) \Rightarrow (k1_partfun1 k5_numbers k5_numbers k5_numbers k5_numbers (k14_finseq_1 X1) (k14_finseq_1 X0) = k14_finseq_1 (k10_xtuple_0 (k2_partfun1 k5_numbers k5_numbers (k14_finseq_1 X0) X1)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow (r1_tarski (k8_relat_1 X1 X0) (k9_xtuple_0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow (k10_xtuple_0 (k5_relat_1 X1 X0) = k7_relat_1 X1 X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (8)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (9)$$

Assume the following.

$$\forall X0.((v1_finset_1 X0) \wedge ((v1_setfam_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (k5_matrix13 X0 = k14_finseq_1 X0) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_partfun1 X0 X1 X2 X3 = k5_relat_1 X2 X3) \quad (12)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (15)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (16)$$

Assume the following.

$$\forall X0.m2_finseq_1 (k14_finseq_1 X0) k5_numbers \quad (17)$$

Assume the following.

$$\begin{aligned} &\forall X0.(\exists X1.(v7_ordinal1 X1)\wedge(r1_tarski X0 (k2_finseq_1 X1)))\Rightarrow(\forall X1.(m2_finseq_1 X1 k5_numbers)\Rightarrow((X1 = k14_finseq_1 X0)\Leftrightarrow((k10_xtuple_0 X1 = X0)\wedge(\forall X2.(v7_ordinal1 X2)\Rightarrow(\forall X3. \\ &\quad (v7_ordinal1 X3)\Rightarrow(\forall X4.(v7_ordinal1 X4)\Rightarrow(\forall X5.(v7_ordinal1 X5)\Rightarrow(\neg(r1_xxreal_0 np_1 X2)\wedge(\neg r1_xxreal_0 X3 X2)\wedge \\ &\quad ((r1_xxreal_0 X3 (k3_finseq_1 X1))\wedge((X4 = k1_funct_1 X1 X2)\wedge((X5 = k1_funct_1 X1 X3)\wedge(r1_xxreal_0 X5 X4))))))))))))) \quad (18) \end{aligned}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Leftrightarrow(X0 \in k4_ordinal1) \quad (19)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_xboole_0 X1)) \quad (20)$$

Theorem 1

$$\forall X0.\forall X1.((v1_finset_1 X1)\wedge((v1_setfam_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 k5_numbers))))\Rightarrow((r1_tarski X0 X1)\Rightarrow(k14_finseq_1 X0 = k1_partfun1 k5_numbers k5_numbers k5_numbers k5_numbers (k14_finseq_1 (k8_relat_1 (k5_matrix13 X1) X0)) (k5_matrix13 X1)))$$