

t48_matrix_9 (TMTXDALWWetEiML- CEAtnnWrN54vGWxuReEg)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $m1_matrix_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_matrix_2 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_matrix_2 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_matrix_2 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 X0 X0) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))) \Rightarrow (k1_relset_1 \\ & X0 X1 = X0) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow (\neg(X0 \in k10_xtuple_0 X1) \wedge (\forall X2. (v7_ordinal1 X2) \Rightarrow \\ & (\neg(X2 \in k4_finseq_1 X1) \wedge (k1_funct_1 X1 X2 = X0)))) \end{aligned} \tag{4}$$

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.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0)) \Rightarrow (k2_relset_1 X0 X1 = k10_xtuple_0 X1) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (9)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow ((\neg v1_xboole_0 (k12_matrix_2 X0)) \wedge (v3_matrix_2 (k12_matrix_2 X0))) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v3_matrix_2 X0)) \Rightarrow (\forall X1. \\ & (m1_matrix_2 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_finseq_1 \\ & (k11_matrix_2 X0)) (k2_finseq_1 (k11_matrix_2 X0))) \wedge ((v3_funct_2 \\ & X1 (k2_finseq_1 (k11_matrix_2 X0)) (k2_finseq_1 (k11_matrix_2 \\ & X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_finseq_1 \\ & (k11_matrix_2 X0)) (k2_finseq_1 (k11_matrix_2 X0)))))))))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (m1_subset_1 (k2_finseq_1 X0) (k1_zfmisc_1 k5_numbers)) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (X1 = k12_matrix_2 X0) \Leftrightarrow \\ & (\forall X2. (X2 \in X1) \Leftrightarrow ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k2_finseq_1 \\ & X0) (k2_finseq_1 X0)) \wedge ((v3_funct_2 X2 (k2_finseq_1 X0) (k2_finseq_1 \\ & X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_finseq_1 \\ & X0) (k2_finseq_1 X0)))))))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge(v5_relat_1 X1 X0))\Rightarrow((v2_funct_2 X1 X0)\Leftrightarrow(k2_relset_1 X0 X1 = X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0)\Rightarrow(((v1_finseq_1 X0)\Leftrightarrow(\exists X1.(v7_ordinal1 X1)\wedge(k9_xtuple_0 X0 = k2_finseq_1 X1)))) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(((v1_funct_1 X2)\wedge(v3_funct_2 X2 X0 X1))\Rightarrow((v1_funct_1 X2)\wedge((v2_funct_1 X2)\wedge(v2_funct_2 X2 X1)))) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (19)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k5_numbers)\Rightarrow(\forall X1.(m1_subset_1 X1 k5_numbers)\Rightarrow(\forall X2.(m1_matrix_2 X2 (k12_matrix_2 X1))\Rightarrow(\neg(X0 \in k2_finseq_1 X1)\wedge(\forall X3.(m1_subset_1 X3 k5_numbers)\Rightarrow(\neg(X3 \in k2_finseq_1 X1)\wedge(X0 = k1_funct_1 X2 X3))))))$$