

t28_matrix_7 (TM-
RTmKC6WkjNKvcC4wyfCDdHgkWQUbNBU4z)

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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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $v5_matrix_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_matrix_2 : \iota \Rightarrow \iota$ be given. Let $k3_matrix_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k2_funct_1 : \iota \Rightarrow \iota$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v2_funct_1 X0) \Rightarrow (k2_funct_1 (k2_funct_1 X0) = X0)) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v3_matrix_2 X0)) \Rightarrow (\forall X1. (m1_matrix_2 X1 X0) \Leftrightarrow (m1_subset_1 X1 X0)) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (m1_subset_1 X1 (k12_matrix_2 X0))) \Rightarrow (k3_matrix_7 X0 X1 = k2_funct_1 X1) \quad (4)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1. (m1_matrix_2 X1 (k12_matrix_2 X0)) \Rightarrow (((v5_matrix_2 X1 (k11_matrix_2 (k12_matrix_2 X0))) \wedge (r1_xxreal_0 np_1 X0)) \Rightarrow (v5_matrix_2 (k3_matrix_7 X0 X1) (k11_matrix_2 (k12_matrix_2 X0)))))) \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((\neg v1_xboole_0\ (k12_matrix_2\ X0))\wedge (v3_matrix_2\ (k12_matrix_2\ X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0\ X0)\wedge(v3_matrix_2\ X0))\Rightarrow(\forall X1. \\ & (m1_matrix_2\ X1\ X0)\Rightarrow((v1_funct_1\ X1)\wedge((v1_funct_2\ X1\ (k2_finseq_1 \\ & (k11_matrix_2\ X0))\ (k2_finseq_1\ (k11_matrix_2\ X0)))\wedge((v3_funct_2 \\ & X1\ (k2_finseq_1\ (k11_matrix_2\ X0))\ (k2_finseq_1\ (k11_matrix_2 \\ & X0)))\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k2_finseq_1 \\ & (k11_matrix_2\ X0))\ (k2_finseq_1\ (k11_matrix_2\ X0)))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_subset_1\ X1\ (k12_matrix_2\ X0)))\Rightarrow(m1_matrix_2\ (k3_matrix_7\ X0\ X1)\ (k12_matrix_2\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ X1)))\Rightarrow(((v1_funct_1\ X2)\wedge(v3_funct_2\ X2\ X0\ X1))\Rightarrow \\ & ((v1_funct_1\ X2)\wedge((v2_funct_1\ X2)\wedge(v2_funct_2\ X2\ X1)))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow(v1_relat_1\ X2) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ k5_numbers)\Rightarrow(\forall X1.(m1_matrix_2 \\ & X1\ (k12_matrix_2\ X0))\Rightarrow((r1_xxreal_0\ np_1\ X0)\Rightarrow((v5_matrix_2 \\ & X1\ (k11_matrix_2\ (k12_matrix_2\ X0)))\Leftrightarrow(v5_matrix_2\ (k3_matrix_7 \\ & X0\ X1)\ (k11_matrix_2\ (k12_matrix_2\ X0)))))) \end{aligned}$$