

t33_matrix_9

(TMZJWba63dzAFXBFbxJffwodDuFHC7WYGjK)

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Let $v7_ordinal1 : \iota \Rightarrow o$ 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 $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $v4_matrix_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k4_relat_1 X0) \Leftrightarrow ((k9_xtuple_0 X1 = X0) \wedge (\forall X2. (X2 \in X0) \Rightarrow (k1_funct_1 X1 X2 = X2)))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 X3) \Leftrightarrow (X2 = X3)) \quad (2)$$

Assume the following.

$$\forall X0. k6_partfun1 X0 = k4_relat_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1 (k4_relat_1 X0)) \wedge ((v4_relat_1 (k4_relat_1 X0) X0) \wedge ((v1_funct_1 (k4_relat_1 X0)) \wedge (v1_partfun1 (k4_relat_1 X0) X0))) \quad (4)$$

Assume the following.

$$\forall X0. (v1_partfun1 (k6_partfun1 X0) X0) \wedge (m1_subset_1 (k6_partfun1 X0) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.v1_relat_1 (k4_relat_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((\\ v1_funct_2 X1 (k2_finseq_1 X0) (k2_finseq_1 X0)) \wedge ((v3_funct_2 \\ X1 (k2_finseq_1 X0) (k2_finseq_1 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_finseq_1 X0) (k2_finseq_1 X0)))))) \Rightarrow ((v4_matrix_2 \\ X1 X0) \Leftrightarrow (\exists X2.(v7_ordinal1 X2) \wedge (\exists X3.(v7_ordinal1 \\ X3) \wedge ((X2 \in k9_xtuple_0 X1) \wedge ((X3 \in k9_xtuple_0 X1) \wedge ((X2 \neq X3) \wedge ((\\ k1_funct_1 X1 X2 = X3) \wedge ((k1_funct_1 X1 X3 = X2) \wedge (\forall X4.(v7_ordinal1 \\ X4) \Rightarrow ((X4 \in k9_xtuple_0 X1) \Rightarrow ((X4 = X2) \vee ((X4 = X3) \vee (k1_funct_1 X1 \\ X4 = X4)))))))))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))) \Rightarrow ((v1_partfun1 X2 X0) \Rightarrow (v1_funct_2 X2 X0 X1)) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((\\ v1_funct_2 X1 (k2_finseq_1 X0) (k2_finseq_1 X0)) \wedge ((v3_funct_2 \\ X1 (k2_finseq_1 X0) (k2_finseq_1 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_finseq_1 X0) (k2_finseq_1 X0)))))) \Rightarrow (\neg(r2_funct_2 \\ (k2_finseq_1 X0) (k2_finseq_1 X0) X1 (k6_partfun1 (k2_finseq_1 \\ X0))) \wedge (v4_matrix_2 X1 X0))) \end{aligned}$$