

t8_matrix11

(TMF4LnbZCpWCCe8Y6SfyycfDQ7kPQA7nUgZC)

October 27, 2020

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 $v4_matrix_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (1)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow ((v3_xxreal_0 X0) \Leftrightarrow (\neg r1_xxreal_0 k6_numbers X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & ((X1 \in k9_xtuple_0 X0) \Rightarrow ((X2 = k1_funct_1 X0 X1) \Leftrightarrow (k4_tarski X1 X2 \in X0))) \wedge ((\neg X1 \in k9_xtuple_0 X0) \Rightarrow ((X2 = k1_funct_1 X0 X1) \Leftrightarrow (X2 = k1_xboole_0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((v1_funct_1\ X1) \wedge ((\\ v1_funct_2\ X1\ (k2_finseq_1\ X0)\ (k2_finseq_1\ X0)) \wedge ((v3_funct_2 \\ X1\ (k2_finseq_1\ X0)\ (k2_finseq_1\ X0)) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ (k2_finseq_1\ X0)\ (k2_finseq_1\ X0)))))) \Rightarrow ((v4_matrix_2 \\ X1\ X0) \Leftrightarrow (\exists X2.(v7_ordinal1\ X2) \wedge (\exists X3.(v7_ordinal1 \\ X3) \wedge ((X2 \in k9_xtuple_0\ X1) \wedge ((X3 \in k9_xtuple_0\ X1) \wedge ((X2 \neq X3) \wedge ((\\ k1_funct_1\ X1\ X2 = X3) \wedge ((k1_funct_1\ X1\ X3 = X2) \wedge (\forall X4.(v7_ordinal1 \\ X4) \Rightarrow ((X4 \in k9_xtuple_0\ X1) \Rightarrow ((X4 = X2) \vee ((X4 = X3) \vee (k1_funct_1\ X1 \\ X4 = X4)))))))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow ((v7_ordinal1\ X0) \wedge (\neg v3_xxreal_0\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (v1_xxreal_0\ X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_relat_1\ X2) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((v1_funct_1\ X1) \wedge ((\\ v1_funct_2\ X1\ (k2_finseq_1\ X0)\ (k2_finseq_1\ X0)) \wedge ((v3_funct_2 \\ X1\ (k2_finseq_1\ X0)\ (k2_finseq_1\ X0)) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ (k2_finseq_1\ X0)\ (k2_finseq_1\ X0)))))) \Rightarrow ((v4_matrix_2 \\ X1\ X0) \Rightarrow (\forall X2.(v7_ordinal1\ X2) \Rightarrow (\forall X3.(v7_ordinal1 \\ X3) \Rightarrow ((\neg r1_xxreal_0\ X3\ X2) \Rightarrow ((k1_funct_1\ X1\ X2 = X3) \Leftrightarrow ((X2 \in k9_xtuple_0 \\ X1) \wedge ((X3 \in k9_xtuple_0\ X1) \wedge ((k1_funct_1\ X1\ X2 = X3) \wedge ((k1_funct_1 \\ X1\ X3 = X2) \wedge (\forall X4.(v7_ordinal1\ X4) \Rightarrow ((X4 \in k9_xtuple_0\ X1) \Rightarrow \\ ((X4 = X2) \vee ((X4 = X3) \vee (k1_funct_1\ X1\ X4 = X4)))))))))))))) \end{aligned}$$