

t8_card_lar
(TMPyhL594wNai312s28Uyycy1BT1zfyjpY9)

October 27, 2020

Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v4_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_card_lar : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v3_ordinal1 X0) \wedge ((v4_ordinal1 X0) \wedge (\neg v1_finset_1 \\ X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow ((v1_card_lar \\ X1 X0) \Leftrightarrow (\forall X2. (v3_ordinal1 X2) \Rightarrow (\neg (X2 \in X0) \wedge (\forall X3. (\\ v3_ordinal1 X3) \Rightarrow (\neg (X3 \in X1) \wedge (r1_ordinal1 X2 X3))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow ((v4_ordinal1 X0) \Leftrightarrow (\forall X1. (\\ v3_ordinal1 X1) \Rightarrow ((X1 \in X0) \Rightarrow (k1_ordinal1 X1 \in X0)))) \quad (3)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((\\ X0 \in X1) \Leftrightarrow (r1_ordinal1 (k1_ordinal1 X0) X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(v3_ordinal1\ X0)\Rightarrow((\neg v1_xboole_0\ (k1_ordinal1\ X0))\wedge (v3_ordinal1\ (k1_ordinal1\ X0))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((\neg v1_xboole_0\ X1)\wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ X0))))\Rightarrow(\forall X2.(m2_subset_1\ X2\ X0\ X1)\Rightarrow(m1_subset_1\ X2\ X0)) \quad (8)$$

Theorem 1

$$\forall X0.((v3_ordinal1\ X0)\wedge((v4_ordinal1\ X0)\wedge(\neg v1_finset_1\ X0)))\Rightarrow(\forall X1.(v3_ordinal1\ X1)\Rightarrow(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ X0)\Rightarrow(\neg(v1_card_lar\ X2\ X0)\wedge((X1\in X0)\wedge(\forall X3.(m1_subset_1\ X3\ X0)\Rightarrow(\neg X3\in ReplSep\ (toset\ (\lambda X4:\iota.m1_subset_1\ X4\ X0))\ (\lambda X4:\iota.(X4\in X2)\wedge(X1\in X4))\ (\lambda X4:\iota.X4))))))))$$