

t90_card_2
(TMRf3bR87tQ5hwV3Wvr8pQLg3rsXHdcd227)

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Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_card_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((r1_tarski\ X0\ X1) \wedge \\ & (r1_tarski\ X2\ X3)) \Rightarrow (r1_tarski\ (k2_zfmisc_1\ X0\ X2)\ (k2_zfmisc_1\ X1\ X3)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (v1_card_1\ X0) \Rightarrow (\forall X1. (v1_card_1\ X1) \Rightarrow ((X0 \in X1) \Leftrightarrow ((r1_ordinal1\ X0\ X1) \wedge (X0 \neq X1)))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski\ X0\ X1) \Rightarrow (r1_ordinal1\ (k1_card_1\ X0)\ (k1_card_1\ X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1\ X0) \wedge (v3_ordinal1\ X1)) \Rightarrow (r1_ordinal1\ X0\ X1 \Leftrightarrow (r1_tarski\ X0\ X1)) \quad (4)$$

Assume the following.

$$\forall X0. (v1_card_1\ X0) \Rightarrow (\forall X1. (v1_card_1\ X1) \Rightarrow (k2_card_2\ X0\ X1 = k1_card_1\ (k2_zfmisc_1\ X0\ X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_card_1\ X0) \wedge (v1_card_1\ X1)) \Rightarrow (k2_card_2\ X0\ X1 = k2_card_2\ X1\ X0) \quad (6)$$

Assume the following.

$$\forall X0. (v1_card_1\ X0) \Rightarrow (v3_ordinal1\ X0) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_card_1\ X0) \Rightarrow (\forall X1.(v1_card_1\ X1) \Rightarrow (\forall X2. \\ & (v1_card_1\ X2) \Rightarrow (\forall X3.(v1_card_1\ X3) \Rightarrow ((\neg(\neg(X0 \in X1) \wedge (X2 \in \\ & X3)) \wedge ((\neg(r1_ordinal1\ X0\ X1) \wedge (X2 \in X3)) \wedge ((\neg(X0 \in X1) \wedge (r1_ordinal1 \\ & X2\ X3)) \wedge (\neg(r1_ordinal1\ X0\ X1) \wedge (r1_ordinal1\ X2\ X3)))))) \Rightarrow ((r1_ordinal1 \\ & (k2_card_2\ X0\ X2)\ (k2_card_2\ X1\ X3)) \wedge (r1_ordinal1\ (k2_card_2\ X2 \\ & X0)\ (k2_card_2\ X1\ X3)))))) \end{aligned}$$