

t78_card_2

(TMJQbwcVZk5aq3SoQk9utJvxaYKPhZe2qSd)

October 27, 2020

Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r2_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (\forall X1.(v1_card_1 X1) \Rightarrow ((v1_finset_1 X0) \Rightarrow ((v1_finset_1 X1) \vee ((X0 \in X1) \wedge (r1_ordinal1 X0 X1)))))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 (k2_xboole_0 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (\forall X1.(v1_card_1 X1) \Rightarrow (\neg(\neg v1_finset_1 X0) \wedge (((r1_ordinal1 X1 X0) \vee (X1 \in X0)) \wedge (\neg(k1_card_2 X0 X1 = X0) \wedge (k1_card_2 X1 X0 = X0)))))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r2_wellord2 X0 X1) \Leftrightarrow (k1_card_1 X0 = k1_card_1 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.r1_ordinal1 (k1_card_1 (k2_xboole_0 X0 X1)) (k1_card_2 (k1_card_1 X0) (k1_card_1 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Rightarrow (r1_ordinal1 (k1_card_1 X0) (k1_card_1 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(\neg v1_finset_1 X0) \Rightarrow ((\neg v1_finset_1 (k1_card_1 X0)) \wedge (v1_card_1 (k1_card_1 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow ((v1_finset_1 (k1_card_1 X0)) \wedge (v1_card_1 (k1_card_1 X0))) \quad (9)$$

Assume the following.

$$\forall X0.v1_card_1 (k1_card_1 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_finset_1 X1)) \quad (11)$$

Theorem 1

$$\forall X0.\forall X1.(v1_finset_1 X1) \Rightarrow ((v1_finset_1 X0) \vee ((r2_wellord2 (k2_xboole_0 X0 X1) X0) \wedge (k1_card_1 (k2_xboole_0 X0 X1) = k1_card_1 X0)))$$