

t21_card_4

(TMKk4mstqQXEm89HbKbEZNwwayRLsCzdao5)

October 27, 2020

Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k2_card_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v4_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg(\neg v1_finset_1 X0) \wedge (\forall X1. \neg(r1_tarski X1 X0) \wedge \\ & (k1_card_1 X1 = k4_ordinal1))) \wedge (\neg(\exists X1. (r1_tarski X1 X0) \wedge \\ & (k1_card_1 X1 = k4_ordinal1))) \wedge (v1_finset_1 X0) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_card_1 X0) \Rightarrow (\forall X1. (v1_card_1 X1) \Rightarrow ((k6_numbers \in \\ & X1) \Rightarrow ((v1_finset_1 X0) \vee (((\neg r1_ordinal1 X1 X0) \wedge (\neg X1 \in X0)) \vee ((k2_card_2 \\ & X0 X1 = X0) \wedge (k2_card_2 X1 X0 = X0)))))) \end{aligned} \quad (2)$$

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.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0. (\neg v1_finset_1 X0) \Rightarrow ((\neg v1_finset_1 (k1_card_1 X0)) \wedge (v1_card_1 (k1_card_1 X0))) \quad (6)$$

Assume the following.

$$v1_card_1 \ k4_ordinal1 \tag{7}$$

Assume the following.

$$\forall X0.v1_card_1 \ (k1_card_1 \ X0) \tag{8}$$

Assume the following.

$$\begin{aligned} \forall X0.(X0 = k4_ordinal1) \Leftrightarrow & ((k1_xboole_0 \in X0) \wedge ((v4_ordinal1 \\ X0) \wedge ((v3_ordinal1 \ X0) \wedge (\forall X1.(v3_ordinal1 \ X1) \Rightarrow & ((k1_xboole_0 \in \\ X1) \wedge (v4_ordinal1 \ X1) \Rightarrow (r1_tarski \ X0 \ X1)))))) \end{aligned} \tag{9}$$

Theorem 1

$$\forall X0.(\neg v1_finset_1 \ X0) \Rightarrow (k1_card_1 \ X0 = k2_card_2 \ k4_ordinal1 \ (k1_card_1 \ X0))$$