

t95_card_2

(TMTMqEAbfzqX4D4t7dXh31pz5qrgWGzf34B)

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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 $k2_card_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.(v3_ordinal1\ X1) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow ((r1_ordinal1\ X1\ (k11_ordinal2\ X1\ X0)) \wedge (r1_ordinal1\ X1\ (k11_ordinal2\ X0\ X1)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.(v3_ordinal1\ X1) \Rightarrow (k1_card_1\ (k11_ordinal2\ X0\ X1) = k2_card_2\ (k1_card_1\ X0)\ (k1_card_1\ X1))) \quad (2)$$

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.

$$\forall X0.\forall X1.r2_wellord2\ X0\ X0 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1\ X0) \wedge (v3_ordinal1\ X1)) \Rightarrow (r1_ordinal1\ X0\ X1) \Leftrightarrow (r1_tarski\ X0\ X1) \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1\ X0) \wedge (v3_ordinal1\ X1)) \Rightarrow (v3_ordinal1\ (k11_ordinal2\ X0\ X1)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v1_card_1 X1)\Rightarrow((X1 = k1_card_1 X0)\Leftrightarrow(r2_wellord2 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_card_1 X0)\wedge(v1_card_1 X1))\Rightarrow(k2_card_2 X0 X1 = k2_card_2 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(v1_card_1 X0)\Rightarrow(v3_ordinal1 X0) \quad (10)$$

Theorem 1

$$\forall X0.(v1_card_1 X0)\Rightarrow(\forall X1.(v1_card_1 X1)\Rightarrow((X0\neq k6_numbers)\Rightarrow((r1_ordinal1 X1 (k2_card_2 X1 X0))\wedge(r1_ordinal1 X1 (k2_card_2 X0 X1))))))$$