

t25_card_5 (TM-
MUWb6Z1cjenQeAq8VCJ2z8ziNVF_{x8UcMC})

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_card_5 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r2_ordinal2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_card_1 : \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $r2_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (r2_ordinal2 (k1_ordinal1 X0) np_1) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((r2_ordinal2 X0 k1_xboole_0) \Rightarrow (X0 = k1_xboole_0)) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k4_card_1 X0 = k1_nat_1 X0 np_1) \quad (4)$$

Assume the following.

$$\forall X0.r1_tarski k1_xboole_0 X0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (7)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\neg(r1_ordinal1 X0 np_1) \wedge ((X0 \neq k1_xboole_0) \wedge (X0 \neq np_1))) \quad (8)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (9)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.r2_wellord2 X0 X0 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r2_ordinal2 X0 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r1_ordinal1 X0 X1) \Leftrightarrow (r1_tarski X0 X1) \quad (13)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (14)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (15)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \quad (16)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k4_card_1 X0 = k1_ordinal1 X0) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers) \wedge (v7_ordinal1 X1)) \Rightarrow (k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_subset_1\ X1\ k5_numbers))\Rightarrow (k1_nat_1\ X0\ X1 = k2_xcmplx_0\ X0\ X1) \quad (19)$$

Assume the following.

$$\forall X0.((v3_ordinal1\ X0)\wedge(v7_ordinal1\ X0))\Rightarrow(v7_ordinal1\ (k1_ordinal1\ X0)) \quad (20)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1)\wedge(v3_ordinal1\ k4_ordinal1) \quad (21)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (22)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0\ (k1_ordinal1\ X0) \quad (23)$$

Assume the following.

$$\forall X0.(v1_finset_1\ X0)\Rightarrow(m1_subset_1\ (k5_card_1\ X0)\ k4_ordinal1) \quad (24)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(m1_subset_1\ (k4_card_1\ X0)\ k4_ordinal1) \quad (25)$$

Assume the following.

$$\forall X0.(v1_card_1\ X0)\Rightarrow(v1_card_1\ (k1_card_5\ X0)) \quad (26)$$

Assume the following.

$$\forall X0.\forall X1.(v1_card_1\ X1)\Rightarrow((X1 = k1_card_1\ X0)\Leftrightarrow(r2_wellord2\ X0\ X1)) \quad (27)$$

Assume the following.

$$\forall X0.(v1_card_1\ X0)\Rightarrow(\forall X1.(v1_card_1\ X1)\Rightarrow((X1 = k1_card_5\ X0)\Leftrightarrow((r2_ordinal2\ X0\ X1)\wedge(\forall X2.(v1_card_1\ X2)\Rightarrow((r2_ordinal2\ X0\ X2)\Rightarrow(r1_ordinal1\ X1\ X2)))))) \quad (28)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarski\ X0\ X1)\wedge(r1_tarski\ X1\ X0)) \quad (29)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k5_numbers)\wedge(v7_ordinal1\ X1))\Rightarrow(k2_nat_1\ X0\ X1 = k2_nat_1\ X1\ X0) \quad (30)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (31)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v1_finset_1 X0) \quad (32)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v3_ordinal1 X0) \quad (33)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_card_1 X0) \quad (34)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v3_ordinal1 X1)) \quad (35)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_card_1 X0) \quad (36)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v3_ordinal1 X0) \wedge (v7_ordinal1 X0)) \quad (37)$$

Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (v3_ordinal1 X0) \quad (38)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (39)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow ((k1_card_5 k6_numbers = k6_numbers) \wedge (k1_card_5 (k5_card_1 (k2_nat_1 X0 np_1)) = np_1))$$