

t18_card_5

(TMGD3ppaothAGgdkIPB4LduMtzarSthpfXD)

October 27, 2020

Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_2 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow (k1_xboole_0 \in X0)) \quad (2)$$

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.

$$\forall X0.(v1_card_1 X0) \Rightarrow (\forall X1.(v1_card_1 X1) \Rightarrow (((k6_numbers \in X1) \Rightarrow ((v1_finset_1 X0) \vee (((\neg r1_ordinal1 X1 X0) \wedge (\neg X1 \in X0)) \vee ((k2_card_2 X0 X1 = X0) \wedge (k2_card_2 X1 X0 = X0))))))) \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_card_1 X0) \wedge (v1_card_1 X1)) \Rightarrow (k2_card_2 X0 X1 = k2_card_2 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_card_1 X0)\wedge(v1_card_1 X1))\Rightarrow(k1_card_2 X0 X1 = k1_card_2 X1 X0) \quad (8)$$

Assume the following.

$$\forall X0.(\neg v1_finset_1 X0)\Rightarrow(\neg v1_xboole_0 X0) \quad (9)$$

Assume the following.

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

Theorem 1

$$\forall X0.(v1_card_1 X0)\Rightarrow(\forall X1.((\neg v1_finset_1 X1)\wedge(v1_card_1 X1))\Rightarrow(((r1_ordinal1 X1 X0)\vee(X1 \in X0))\Rightarrow((k1_card_2 X1 X0 = X0)\wedge(k1_card_2 X0 X1 = X0)\wedge(k2_card_2 X1 X0 = X0)\wedge(k2_card_2 X0 X1 = X0))))))$$