

t41_nat_1 (TMbbUAGx- ADA7nMdgArH9AHVJK1ZtZTQJsNA)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (r1_tarski\ X1\ X0) \quad (1)$$

Assume the following.

$$\forall X0. (v7_ordinal1\ X0) \Rightarrow (\forall X1. (v7_ordinal1\ X1) \Rightarrow ((r1_ordinal1\ (k5_card_1\ X0)\ (k5_card_1\ X1)) \Leftrightarrow (r1_xxreal_0\ X0\ X1))) \quad (2)$$

Assume the following.

$$\forall X0. (v3_ordinal1\ X0) \Rightarrow (\forall X1. (v3_ordinal1\ X1) \Rightarrow ((r1_ordinal1\ X0\ X1) \vee (X1 \in X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1\ X0) \wedge (v3_ordinal1\ X1)) \Rightarrow ((r1_ordinal1\ X0\ X1) \Leftrightarrow (r1_tarski\ X0\ X1)) \quad (4)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0. (v1_finset_1\ X0) \Rightarrow (m1_subset_1\ (k5_card_1\ X0)\ k4_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0. (v7_ordinal1\ X0) \Rightarrow (v1_finset_1\ X0) \quad (7)$$

Assume the following.

$$\forall X0. (v3_ordinal1\ X0) \Rightarrow (\forall X1. (m1_subset_1\ X1\ X0) \Rightarrow (v3_ordinal1\ X1)) \quad (8)$$

Theorem 1

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow ((k5_card_1\ X0 \in k5_card_1\ X1) \Leftrightarrow (\neg r1_xxreal_0\ X1\ X0)))$$