

t35_nat_3

(TMSHWenmzL8ZkjXvuqn1PDx8bybw3Gj2qng)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_nat_3 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k11_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_newton : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(X1 \in k9_xtuple_0 (k12_nat_3 X0)) \Rightarrow ((v7_ordinal1 X1) \wedge (v1_int_2 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\neg (X0 \neq k6_numbers) \wedge ((\neg r1_xreal_0 X1 X0) \wedge ((X1 \neq np_1) \wedge (k11_nat_3 X0 X1 \neq k6_numbers)))))) \quad (2)$$

Assume the following.

$$r1_xreal_0 np_1 np_1 \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v1_relat_1 (k12_nat_3 X0)) \wedge ((v4_relat_1 (k12_nat_3 X0) k10_newton) \wedge ((v1_funct_1 (k12_nat_3 X0)) \wedge (v1_partfun1 (k12_nat_3 X0) k10_newton)))))) \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k10_newton) \wedge ((v1_funct_1 X1) \wedge (v1_partfun1 X1 k10_newton)))) \Rightarrow ((X1 = k12_nat_3 X0) \Leftrightarrow (\forall X2.((v7_ordinal1 X2) \wedge (v1_int_2 X2)) \Rightarrow (k1_funct_1 X1 X2 = k11_nat_3 X0 X2)))))) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v1_int_2\ X0)\Leftrightarrow((\neg r1_xxreal_0\ X0\ np_1)\wedge(\forall X1.(v7_ordinal1\ X1)\Rightarrow(\neg(r1_int_1\ X1\ X0)\wedge((X1\neq np_1)\wedge(X1\neq X0))))))\quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge(v1_funct_1\ X0))\Rightarrow(\forall X1.\forall X2.((X1\in k9_xtuple_0\ X0)\Rightarrow((X2 = k1_funct_1\ X0\ X1)\Leftrightarrow(k4_tarski\ X1\ X2\in X0)))\wedge((\neg X1\in k9_xtuple_0\ X0)\Rightarrow((X2 = k1_funct_1\ X0\ X1)\Leftrightarrow(X2 = k1_xboole_0))))\quad (8)$$

Theorem 1

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow(\neg(\neg r1_xxreal_0\ X0\ X1)\wedge((X1\neq k6_numbers)\wedge(k1_funct_1\ (k12_nat_3\ X1)\ X0\neq k6_numbers))))$$