

t6_radix_6

(TMQZ9ugiieQdog5GQY2egQkc28G2z59tg2S)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $r1_radix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_radix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_radix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_radix_1 : \iota \Rightarrow \iota$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k3_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k13_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_radix_1 : \iota \Rightarrow \iota$ be given. Let $k9_radix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 \\ & X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg r1_xxreal_0 (k1_radix_1 X0) k6_numbers) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\neg (\\ & \neg r1_xxreal_0 X0 k6_numbers) \wedge (r1_xxreal_0 (k1_newton X0 X1) k6_numbers))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\neg (X0 \in X1) \wedge ((m1_subset_1 X1 (\\ & k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((X0 = k6_numbers) \vee (X0 \in k2_finseq_1 X0)) \quad (5)$$

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.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow((\neg r1_xxreal_0\ X1\ X0)\Rightarrow(k4_nat_d\ X0\ X1 = X0))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(\forall X1.(v1_xreal_0\ X1)\Rightarrow(((r1_xxreal_0\ X0\ X1)\wedge(v2_xxreal_0\ X0))\Rightarrow(v2_xxreal_0\ X1))) \quad (8)$$

Assume the following.

$$m1_subset_1\ k1_xboole_0\ k4_ordinal1 \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow(((r1_xxreal_0\ X0\ X1)\Rightarrow((r1_xxreal_0\ X0\ k6_numbers)\vee(r1_xxreal_0\ np_1\ (k3_nat_d\ X1\ X0)))))) \quad (10)$$

Assume the following.

$$((v2_xxreal_0\ np_1)\wedge(m2_subset_1\ np_1\ k1_numbers\ k5_numbers))\wedge ((m1_subset_1\ np_1\ k5_numbers)\wedge(m1_subset_1\ np_1\ k1_numbers)) \quad (11)$$

Assume the following.

$$\neg v1_xboole_0\ np_1 \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((\neg v1_xboole_0\ X1)\wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ X0))))\Rightarrow(\forall X2.(m2_subset_1\ X2\ X0\ X1)\Leftrightarrow(m1_subset_1\ X2\ X1)) \quad (13)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k5_numbers)\wedge(m1_subset_1\ X1\ k5_numbers))\Rightarrow(k13_newton\ X0\ X1 = k1_newton\ X0\ X1) \quad (16)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (17)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (v7_ordinal1 \ X1)) \Rightarrow (v7_ordinal1 \ (k1_newton \ X0 \ X1)) \quad (18)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \quad (19)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (v7_ordinal1 \ X1)) \Rightarrow (m1_subset_1 \ (k7_nat_d \ X0 \ X1) \ k5_numbers) \quad (20)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (21)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (v7_ordinal1 \ X1)) \Rightarrow (m1_subset_1 \ (k4_nat_d \ X0 \ X1) \ k5_numbers) \quad (22)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (v7_ordinal1 \ X1)) \Rightarrow (m1_subset_1 \ (k3_nat_d \ X0 \ X1) \ k5_numbers) \quad (23)$$

Assume the following.

$$\forall X0. (v7_ordinal1 \ X0) \Rightarrow (m1_subset_1 \ (k1_radix_1 \ X0) \ k5_numbers) \quad (24)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k5_numbers) \wedge (m1_subset_1 \ X1 \ k5_numbers)) \Rightarrow (m2_subset_1 \ (k13_newton \ X0 \ X1) \ k1_numbers \ k5_numbers) \quad (25)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v7_ordinal1 \ X0) \wedge ((v7_ordinal1 \ X1) \wedge (v7_ordinal1 \ X2))) \Rightarrow ((v3_card_1 \ (k10_radix_1 \ X0 \ X1 \ X2) \ X1) \wedge (m2_finseq_1 \ (k10_radix_1 \ X0 \ X1 \ X2) \ (k3_radix_1 \ X0))) \quad (26)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 \ X0) \Rightarrow (\forall X1. (v7_ordinal1 \ X1) \Rightarrow (\forall X2. \\ (v7_ordinal1 \ X2) \Rightarrow (\forall X3. ((v3_card_1 \ X3 \ X1) \wedge (m2_finseq_1 \\ X3 \ (k3_radix_1 \ X0)))) \Rightarrow ((X3 = k10_radix_1 \ X0 \ X1 \ X2) \Leftrightarrow (\forall X4. (\\ v7_ordinal1 \ X4) \Rightarrow ((X4 \in k2_finseq_1 \ X1) \Rightarrow (k4_radix_1 \ X4 \ X0 \ X1 \ X3 = \\ k9_radix_1 \ X4 \ X0 \ X2)))))) \end{aligned} \quad (27)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1\ X2) \Rightarrow (k9_radix_1\ X0\ X1\ X2 = k3_nat_d\ (k4_nat_d\ X2\ (k1_newton \\ & (k1_radix_1\ X1)\ X0))\ (k13_newton\ (k1_radix_1\ X1)\ (k7_nat_d\ X0\ np_1)))))) \end{aligned} \quad (28)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v1_int_1\ X2) \Rightarrow ((r1_radix_6\ X0\ X1\ X2) \Leftrightarrow ((\neg r1_xxreal_0\ (k1_newton \\ & (k1_radix_1\ X1)\ X0)\ X2) \wedge (r1_xxreal_0\ (k13_newton\ (k1_radix_1 \\ & X1)\ (k7_nat_d\ X0\ np_1))\ X2)))))) \end{aligned} \quad (29)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \quad (30)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0) \Rightarrow (v1_xxreal_0\ X0) \quad (31)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_xxreal_0\ X0) \wedge (v2_xxreal_0\ X0)) \Rightarrow ((\neg v1_xboole_0 \\ & X0) \wedge ((v1_xxreal_0\ X0) \wedge (\neg v3_xxreal_0\ X0))) \end{aligned} \quad (32)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (v1_xreal_0\ X0) \quad (33)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (\neg v3_xxreal_0\ X0) \quad (34)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0) \Rightarrow (v1_int_1\ X0) \quad (35)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (v1_xreal_0\ X0) \quad (36)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1\ X2) \Rightarrow (\neg(r1_xxreal_0\ np_1\ X0) \wedge ((r1_radix_6\ X0\ X1 \\ & X2) \wedge (r1_xxreal_0\ (k4_radix_1\ X0\ X1\ X0\ (k10_radix_1\ X1\ X0\ X2))\ k6_numbers)))))) \end{aligned}$$