

t12_int_7

(TMRu2pcX744zkXw9QpUYvgbYZGjDTjih4M6)

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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 $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $v1_int_7 : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_polynom2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_int_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (r1_nat_d X0 X1) \Leftrightarrow (r1_int_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(\forall X1.((v1_relat_1 \\ X1)\wedge((v4_relat_1\ X1\ k10_newton)\wedge((v1_funct_1\ X1)\wedge((v1_partfun1 \\ X1\ k10_newton)\wedge((v4_valued_0\ X1)\wedge(v2_pre_poly\ X1))))))\Rightarrow(((\\ v1_int_7\ X1)\wedge(r1_int_1\ X0\ (k8_nat_3\ k10_newton\ X1)))\Rightarrow(X0\in k1_polynom2 \\ k10_newton\ X1))) \end{aligned} \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1)\wedge(v3_ordinal1\ k4_ordinal1) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_relat_1\ X1)\wedge((v4_relat_1\ X1\ X0)\wedge(\\ (v1_funct_1\ X1)\wedge((v1_partfun1\ X1\ X0)\wedge((v4_valued_0\ X1)\wedge(v2_pre_poly \\ X1))))))\Rightarrow(m2_subset_1\ (k8_nat_3\ X0\ X1)\ k1_numbers\ k5_numbers) \end{aligned} \quad (7)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow((\\ r1_int_2\ X0\ X1)\Leftrightarrow(\forall X2.((v7_ordinal1\ X2)\wedge(v1_int_2\ X2))\Rightarrow \\ (\neg(r1_nat_d\ X2\ X0)\wedge(r1_nat_d\ X2\ X1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (11)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1\ X0)\wedge((v4_relat_1\ X0\ k10_newton)\wedge((v1_funct_1 \\ X0)\wedge((v1_partfun1\ X0\ k10_newton)\wedge((v4_valued_0\ X0)\wedge(v2_pre_poly \\ X0))))))\Rightarrow(\forall X1.((v1_relat_1\ X1)\wedge((v4_relat_1\ X1\ k10_newton)\wedge \\ ((v1_funct_1\ X1)\wedge((v1_partfun1\ X1\ k10_newton)\wedge((v4_valued_0 \\ X1)\wedge(v2_pre_poly\ X1))))))\Rightarrow(((v1_int_7\ X0)\wedge((v1_int_7\ X1)\wedge(\\ r1_xboole_0\ (k1_polynom2\ k10_newton\ X0)\ (k1_polynom2\ k10_newton \\ X1))))\Rightarrow(r1_int_2\ (k8_nat_3\ k10_newton\ X0)\ (k8_nat_3\ k10_newton \\ X1)))) \end{aligned}$$