

t41_pepin (TMTScQm- FoTjDTRnN7Fy4hxpFtio53YooQWE)

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Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_int_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $np_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow ((r1_nat_d X0 X1) \Leftrightarrow (k4_nat_d X1 X0 = k6_numbers)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow ((r1_int_1 k6_numbers X0) \Leftrightarrow (X0 = k6_numbers)) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\neg r1_xxreal_0 X1 X0) \Rightarrow (k4_nat_d X0 X1 = X0))) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (k4_nat_d X0 X1 = k4_nat_d (k2_xcmplx_0 (k3_xcmplx_0 X1 X2) X0) X1))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((\neg r1_xxreal_0\ np_1\ X0)\Rightarrow(X0 = k6_numbers)) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v7_ordinal1\ X1)\Rightarrow((\neg r1_xxreal_0\ (k1_nat_1\ X1\ np_1)\ X0)\Leftrightarrow(r1_xxreal_0\ X0\ X1))) \quad (7)$$

Assume the following.

$$((v2_xxreal_0\ np_3)\wedge(m2_subset_1\ np_3\ k1_numbers\ k5_numbers))\wedge((m1_subset_1\ np_3\ k5_numbers)\wedge(m1_subset_1\ np_3\ k1_numbers)) \quad (8)$$

Assume the following.

$$((v2_xxreal_0\ np_2)\wedge(m2_subset_1\ np_2\ k1_numbers\ k5_numbers))\wedge((m1_subset_1\ np_2\ k5_numbers)\wedge(m1_subset_1\ np_2\ k1_numbers)) \quad (9)$$

Assume the following.

$$((v2_xxreal_0\ np_1)\wedge(m2_subset_1\ np_1\ k1_numbers\ k5_numbers))\wedge((m1_subset_1\ np_1\ k5_numbers)\wedge(m1_subset_1\ np_1\ k1_numbers)) \quad (10)$$

Assume the following.

$$(m2_subset_1\ np_0\ k1_numbers\ k5_numbers)\wedge((m1_subset_1\ np_0\ k5_numbers)\wedge(m1_subset_1\ np_0\ k1_numbers)) \quad (11)$$

Assume the following.

$$k3_xcmplx_0\ np_2\ np_1 = np_2 \quad (12)$$

Assume the following.

$$k2_xcmplx_0\ np_2\ np_1 = np_3 \quad (13)$$

Assume the following.

$$k2_xcmplx_0\ np_1\ np_1 = np_2 \quad (14)$$

Assume the following.

$$\neg r1_xxreal_0\ np_3\ np_1 \quad (15)$$

Assume the following.

$$\neg r1_xxreal_0\ np_2\ np_1 \quad (16)$$

Assume the following.

$$\neg r1_xxreal_0\ np_1\ np_0 \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(v7_ordinal1\ X1))\Rightarrow((r1_nat_d\ X0\ X1)\Leftrightarrow(r1_int_1\ X0\ X1)) \quad (18)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_subset_1\ X1\ k5_numbers))\Rightarrow((k1_nat_1\ X0\ X1 = k2_xcmplx_0\ X0\ X1)) \quad (20)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v1_int_2\ X0)\Leftrightarrow((\neg r1_xxreal_0\ X0\ np_1)\wedge(\forall X1.(v7_ordinal1\ X1)\Rightarrow(\neg(r1_int_1\ X1\ X0)\wedge((X1\neq np_1)\wedge(X1\neq X0)))))) \quad (21)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (22)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (23)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_int_1\ X0) \quad (24)$$

Theorem 1 $v1_int_2\ np_3$.