

t7_uproots (TMLMD- VSdM2vGHGKURFCawLC176nFtM4oVNp)

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Let $v1_finset_1 : \iota \Rightarrow o$ 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 $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_recdef_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_uproots : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k8_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $k15_pre_poly : \iota \Rightarrow \iota$ be given. Let $k14_pre_poly : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X1 \in X0) \Rightarrow (k1_funct_1 (k2_funcop_1 X0 X2) X1 = X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((X0 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 (k1_funct_4 X2 X1) X0 = k1_funct_1 X1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X2 X0))\Rightarrow(k8_funcop_1 X0 X1 X2 = k2_funcop_1 X1 X2) \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v4_valued_0 X0)))\Rightarrow(k1_recdef_1 X0 X1 = k1_funct_1 X0 X1) \quad (7)$$

Assume the following.

$$\forall X0.k15_pre_poly X0 = k14_pre_poly X0 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (9)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (10)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k14_pre_poly X0) \quad (11)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (12)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X2 X0))\Rightarrow((v1_funct_1 (k8_funcop_1 X0 X1 X2))\wedge((v1_funct_2 (k8_funcop_1 X0 X1 X2) X1 X0)\wedge(m1_subset_1 (k8_funcop_1 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X1 X0)))))) \quad (14)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_finset_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0)))\wedge(m1_subset_1 X2 k5_numbers))\Rightarrow(m2_subset_1 (k2_uproots X0 X1 X2) (k14_pre_poly X0) (k15_pre_poly X0)) \quad (16)$$

Assume the following.

$$\forall X0.m2_subset_1 (k16_pre_poly X0) (k14_pre_poly X0) (k15_pre_poly X0) \quad (17)$$

Assume the following.

$$\forall X0.m1_subset_1 (k15_pre_poly X0) (k1_zfmisc_1 (k14_pre_poly X0)) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((v1_finset_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0)))\Rightarrow(\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers)\Rightarrow(k2_uproots X0 X1 X2 = k1_funct_4 (k16_pre_poly X0) (k8_funcop_1 k5_numbers X1 X2))) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarSKI X1) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k15_pre_poly X0)))\Rightarrow(v4_funct_1 X1) \quad (21)$$

Assume the following.

$$\forall X0.(v4_funct_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1))) \quad (22)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_xboole_0 X1)) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k15_pre_poly X0))))\Rightarrow(\forall X2.(m1_subset_1 X2 X1)\Rightarrow((v1_partfun1 X2 X0)\wedge((v4_valued_0 X2)\wedge(v2_pre_poly X2)))) \quad (24)$$

Theorem 1

$$\forall X0.\forall X1.((v1_finset_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0)))\Rightarrow(\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers)\Rightarrow(\forall X3.(X3 \in X1)\Rightarrow(k1_recdef_1 (k2_uproots X0 X1 X2) X3 = X2)))$$