

t53_moebius1

(TMW1UfU2s48TGZXRvtB1JyavxZpihkHEVsm)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $k6_moebius1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k19_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_uproots : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_moebius1 : \iota \Rightarrow \iota$ be given. Let $k1_polynom2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_newton : \iota$ be given. Let $k12_nat_3 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_numbers : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k8_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k13_pre_poly : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k19_rvsum_1 (k9_finseq_1 X0) = X0) \quad (1)$$

Assume the following.

$$\forall X0.k1_uproots (k1_tarski X0) = k9_finseq_1 X0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (k3_relat_1 (k9_finseq_1 X0) (k5_moebius1 X0) = k9_finseq_1 X0) \quad (4)$$

Assume the following.

$$\forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(k1_polynom2\ k10_newton\ (k12_nat_3\ X0) = k1_tarski\ X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X0\ (k1_zfmisc_1\ X1))\Leftrightarrow(r1_tarski\ X0\ X1) \quad (6)$$

Assume the following.

$$r1_tarski\ k5_numbers\ k2_numbers \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1\ X1\ X0)\Leftrightarrow(m1_finseq_1\ X1\ X0) \quad (8)$$

Assume the following.

$$\forall X0.k9_finseq_1\ X0 = k5_finseq_1\ X0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X1)\wedge((v4_relat_1\ X1\ X0)\wedge(v1_funct_1\ X1)\wedge((v1_partfun1\ X1\ X0)\wedge((v4_valued_0\ X1)\wedge(v2_pre_poly\ X1))))))\Rightarrow(k8_nat_3\ X0\ X1 = k7_nat_3\ X0\ X1) \quad (10)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge(m1_subset_1\ X1\ X0))\Rightarrow(k3_pre_poly\ X0\ X1 = k5_finseq_1\ X1) \quad (12)$$

Assume the following.

$$\forall X0.(m1_finseq_1\ X0\ k2_numbers)\Rightarrow(k20_rvsum_1\ X0 = k19_rvsum_1\ X0) \quad (13)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0\ X0)\wedge(v7_ordinal1\ X0))\Rightarrow((v1_relat_1\ (k5_moebius1\ X0))\wedge((v4_relat_1\ (k5_moebius1\ X0)\ k10_newton)\wedge((v1_funct_1\ (k5_moebius1\ X0))\wedge((v1_partfun1\ (k5_moebius1\ X0)\ k10_newton)\wedge((v4_valued_0\ (k5_moebius1\ X0))\wedge(v2_pre_poly\ (k5_moebius1\ X0)))))))) \quad (14)$$

Assume the following.

$$\neg v1_xboole_0 \ k2_numbers \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 \ X1 \ X0) \Rightarrow (\forall X2.(m2_finseq_2 \ X2 \ X0 \ X1) \Rightarrow (m2_finseq_1 \ X2 \ X0)) \quad (16)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 \ X0) \wedge (v7_ordinal1 \ X0)) \Rightarrow ((v1_relat_1 \ (k5_moebius1 \ X0)) \wedge ((v4_relat_1 \ (k5_moebius1 \ X0) \ k10_newton) \wedge ((v1_funct_1 \ (k5_moebius1 \ X0)) \wedge (v1_partfun1 \ (k5_moebius1 \ X0) \ k10_newton)))) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 \ X0) \wedge (m1_subset_1 \ X1 \ X0)) \Rightarrow (m2_finseq_2 \ (k3_pre_poly \ X0 \ X1) \ X0 \ (k3_finseq_2 \ X0)) \quad (18)$$

Assume the following.

$$\forall X0.m1_finseq_2 \ (k3_finseq_2 \ X0) \ X0 \quad (19)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 \ X0) \wedge (v7_ordinal1 \ X0)) \Rightarrow (k6_moebius1 \ X0 = k8_nat_3 \ k10_newton \ (k5_moebius1 \ X0)) \quad (20)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 \ X0) \wedge (v7_ordinal1 \ X0)) \Rightarrow (\forall X1.((v1_relat_1 \ X1) \wedge ((v4_relat_1 \ X1 \ k10_newton) \wedge ((v1_funct_1 \ X1) \wedge (v1_partfun1 \ X1 \ k10_newton)))) \Rightarrow ((X1 = k5_moebius1 \ X0) \Leftrightarrow ((k13_pre_poly \ X1 = k1_polynom2 \ k10_newton \ (k12_nat_3 \ X0)) \wedge (\forall X2.(v7_ordinal1 \ X2) \Rightarrow ((X2 \in k1_polynom2 \ k10_newton \ (k12_nat_3 \ X0)) \Rightarrow (k1_funct_1 \ X1 \ X2 = X2)))))) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 \ X1) \wedge ((v4_relat_1 \ X1 \ X0) \wedge ((v1_funct_1 \ X1) \wedge ((v1_partfun1 \ X1 \ X0) \wedge ((v1_valued_0 \ X1) \wedge (v2_pre_poly \ X1)))))) \Rightarrow (\forall X2.(v1_xcmplx_0 \ X2) \Rightarrow ((X2 = k7_nat_3 \ X0 \ X1) \Leftrightarrow (\exists X3.(m2_finseq_1 \ X3 \ k2_numbers) \wedge ((X2 = k20_rvsum_1 \ X3) \wedge (X3 = k3_relat_1 \ (k1_uproots \ (k13_pre_poly \ X1) \ X1)))))) \quad (22)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0) \Leftrightarrow (X0 \in k4_ordinal1) \quad (23)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v4_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \quad (24)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \quad (25)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v1_valued_0 X0)) \quad (26)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 \ k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (27)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 X0) \wedge (v1_int_2 X0))) \quad (28)$$

Theorem 1 $\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (X0 = k6_moebius1 X0).$