

t45_moebius1

(TMWD5qU1UbfCwhBgBzwNtZA7hWoDo3nawpa)

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Let $k5_moebius1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Let $k10_newton : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ 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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k8_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_polynom2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_pre_poly : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k12_nat_3 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. (\forall X2. \\ & (X2 \in k9_xtuple_0 X0) \Rightarrow (k1_funct_1 X0 X2 = X1)) \Rightarrow (X0 = k2_funcop_1 \\ & (k9_xtuple_0 X0) X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\neg v1_xboole_0 \ np_1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 \ X0)\wedge(m1_subset_1 \ X2 \ X0))\Rightarrow(k8_funcop_1 \ X0 \ X1 \ X2 = k2_funcop_1 \ X1 \ X2) \tag{7}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{8}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 \ X1)\wedge(v4_relat_1 \ X1 \ X0))\Rightarrow(k1_relset_1 \ X0 \ X1 = k9_xtuple_0 \ X1) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 \ X1)\wedge((v4_relat_1 \ X1 \ X0)\wedge(v1_funct_1 \ X1)\wedge((v1_partfun1 \ X1 \ X0)\wedge((v4_valued_0 \ X1)\wedge(v2_pre_poly \ X1))))))\Rightarrow(k1_polynom2 \ X0 \ X1 = k13_pre_poly \ X1) \tag{11}$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1)\wedge(v3_ordinal1 \ k4_ordinal1) \tag{12}$$

Assume the following.

$$v1_xboole_0 \ (k13_pre_poly \ (k12_nat_3 \ np_1)) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 \ X0)\wedge(v7_ordinal1 \ X0))\Rightarrow((v1_relat_1 \ (k12_nat_3 \ X0))\wedge((v4_relat_1 \ (k12_nat_3 \ X0) \ k10_newton)\wedge((v1_funct_1 \ (k12_nat_3 \ X0))\wedge((v1_partfun1 \ (k12_nat_3 \ X0) \ k10_newton)\wedge(v2_pre_poly \ (k12_nat_3 \ X0))))))) \tag{14}$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0)\Rightarrow((v1_relat_1 \ (k12_nat_3 \ X0))\wedge((v4_relat_1 \ (k12_nat_3 \ X0) \ k10_newton)\wedge((v1_funct_1 \ (k12_nat_3 \ X0))\wedge((v1_partfun1 \ (k12_nat_3 \ X0) \ k10_newton)\wedge(v4_valued_0 \ (k12_nat_3 \ X0))))))) \tag{15}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((v1_relat_1 \\ (k5_moebius1 X0)) \wedge ((v4_relat_1 (k5_moebius1 X0) k10_newton) \wedge \\ ((v1_funct_1 (k5_moebius1 X0)) \wedge (v1_partfun1 (k5_moebius1 X0) \\ k10_newton)))) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow ((v1_relat_1 (k12_nat_3 X0)) \wedge ((\\ v4_relat_1 (k12_nat_3 X0) k10_newton) \wedge ((v1_funct_1 (k12_nat_3 \\ X0)) \wedge (v1_partfun1 (k12_nat_3 X0) k10_newton)))) \end{aligned} \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = \\ k13_pre_poly X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (k1_funct_1 X0 X2 \neq k6_numbers))) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k10_newton) \wedge ((v1_funct_1 X1) \wedge \\ (v1_partfun1 X1 k10_newton)))) \Rightarrow ((X1 = k5_moebius1 X0) \Leftrightarrow ((k13_pre_poly \\ X1 = k1_polynom2 k10_newton (k12_nat_3 X0)) \wedge (\forall X2.(v7_ordinal1 \\ X2) \Rightarrow ((X2 \in k1_polynom2 k10_newton (k12_nat_3 X0)) \Rightarrow (k1_funct_1 \\ X1 X2 = X2)))))) \end{aligned} \quad (19)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (\\ (v1_partfun1 X1 X0) \Leftrightarrow (k1_relset_1 X0 X1 = X0)) \end{aligned} \quad (20)$$

Assume the following.

$$\forall X0.k16_pre_poly X0 = k8_funcop_1 k5_numbers X0 k6_numbers \quad (21)$$

Assume the following.

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

Theorem 1 $k5_moebius1 np_1 = k16_pre_poly k10_newton.$