

t47_moebius1

(TMKJcRgVxd3YdB2BY1LKn1WQn47r3TN82pr)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_moebius1 : \iota \Rightarrow \iota$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_tarSKI : \iota \Rightarrow \iota$ 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 $k13_pre_poly : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge (v7_ordinal1 X1)) \Rightarrow (k1_polynom2 k10_newton \\ & (k12_nat_3 X0) = k1_polynom2 k10_newton (k12_nat_3 (k1_newton \\ & X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (k3_relat_1 (k9_finseq_1 X0) (k5_moebius1 X0) = k9_finseq_1 X0) \quad (2)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (k1_polynom2 k10_newton (k12_nat_3 X0) = k1_tarSKI X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k1_newton X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \wedge (v7_ordinal1 X1)) \Rightarrow (\neg v1_xboole_0 (k1_newton X0 X1)) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((v1_relat_1 \\ (k5_moebius1 X0)) \wedge ((v4_relat_1 (k5_moebius1 X0) k10_newton) \wedge \\ ((v1_funct_1 (k5_moebius1 X0)) \wedge (v1_partfun1 (k5_moebius1 X0) \\ k10_newton)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (\forall X1. \\ ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k10_newton) \wedge ((v1_funct_1 X1) \wedge \\ (v1_partfun1 X1 k10_newton)))) \Rightarrow ((X1 = k5_moebius1 X0) \Leftrightarrow ((k13_pre_poly \\ X1 = k1_polynom2 k10_newton (k12_nat_3 X0)) \wedge (\forall X2.(v7_ordinal1 \\ X2) \Rightarrow ((X2 \in k1_polynom2 k10_newton (k12_nat_3 X0)) \Rightarrow (k1_funct_1 \\ X1 X2 = X2))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0) \wedge (v1_int_2 X0)) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (\forall X1.((\neg \\ v1_xboole_0 X1) \wedge (v7_ordinal1 X1)) \Rightarrow (k3_relat_1 (k9_finseq_1 \\ X0) (k5_moebius1 (k1_newton X0 X1)) = k9_finseq_1 X0)) \end{aligned}$$