t54_moebius1 (TMFmheHg-Ghd79Wc7miqMbEWjhpb9vLYAxsA)

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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 $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k6\_moebius1 : \iota \Rightarrow \iota$ be given. Let $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1\_polynom2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_newton : \iota$ be given. Let $k12\_nat\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_moebius1 : \iota \Rightarrow \iota$ 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 $v1\_relat\_1 : \iota \Rightarrow o$ 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 $k2\_numbers : \iota$ be given. Let $k20\_rvsum\_1 : \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k13\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_valued\_0 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k19\_rvsum\_1\ (k9\_finseq\_1\ X0) = X0) \tag{1}$$

Assume the following.

$$\forall X0.k1\_uproots\ (k1\_tarski\ X0) = k9\_finseq\_1\ X0 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v7\_ordinal1\ X0)) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge (v7\_ordinal1\ X1)) \Rightarrow (k1\_polynom2\ k10\_newton\ (k12\_nat\_3\ X0) = k1\_polynom2\ k10\_newton\ (k12\_nat\_3\ (k1\_newton\ X0\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge(v7\_ordinal1\ X1))\Rightarrow(k3\_relat\_1\ (k9\_finseq\_1\ X0)\ (k5\_moebius1\ (k1\_newton\ X0\ X1))=k9\_finseq\_1\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow(k1\_polynom2\ k10\_newton\ (k12\_nat\_3\ X0)=k1\_tarski\ X0) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1)\Rightarrow((v1\_xboole\_0\ X1)\vee(X0\in X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Leftrightarrow(m1\_finseq\_1\ X1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge((v4\_valued\_0\ X1)\wedge(v2\_pre\_poly\ X1))))))\Rightarrow(k8\_nat\_3\ X0\ X1=k7\_nat\_3\ X0\ X1) \tag{10}$$

Assume the following.

$$k5\_numbers=k4\_ordinal1 \tag{11}$$

Assume the following.

$$\forall X0.(m1\_finseq\_1\ X0\ k2\_numbers)\Rightarrow(k20\_rvsum\_1\ X0=k19\_rvsum\_1\ X0) \tag{12}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow((v1\_relat\_1\ (k5\_moebius1\ X0))\wedge((v4\_relat\_1\ (k5\_moebius1\ X0)\ k10\_newton)\wedge((v1\_funct\_1\ (k5\_moebius1\ X0))\wedge((v1\_partfun1\ (k5\_moebius1\ X0)\ k10\_newton)\wedge((v4\_valued\_0\ (k5\_moebius1\ X0))\wedge(v2\_pre\_poly\ (k5\_moebius1\ X0))))))) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(v7\_ordinal1\ (k1\_newton\ X0\ X1)) \tag{15}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\wedge(v7\_ordinal1\ X1))\Rightarrow(\neg v1\_xboole\_0\ (k1\_newton\ X0\ X1)) \tag{17}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow(m2\_subset\_1\ (k6\_moebius1\ X0)\ k1\_numbers\ k5\_numbers) \tag{18}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{19}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow((v1\_relat\_1\ (k5\_moebius1\ X0))\wedge((v4\_relat\_1\ (k5\_moebius1\ X0)\ k10\_newton)\wedge((v1\_funct\_1\ (k5\_moebius1\ X0))\wedge(v1\_partfun1\ (k5\_moebius1\ X0)\ k10\_newton)))) \tag{20}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow(k6\_moebius1\ X0 = k8\_nat\_3\ k10\_newton\ (k5\_moebius1\ X0)) \tag{21}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k10\_newton)\wedge((v1\_funct\_1\ X1)\wedge(v1\_partfun1\ X1\ k10\_newton))))\Rightarrow((X1 = k5\_moebius1\ X0)\Leftrightarrow((k13\_pre\_poly\ X1 = k1\_polynom2\ k10\_newton\ (k12\_nat\_3\ X0))\wedge(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((X2 \in k1\_polynom2\ k10\_newton\ (k12\_nat\_3\ X0))\Rightarrow(k1\_funct\_1\ X1\ X2 = X2)))))) \tag{22}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge((v1\_valued\_0\ X1)\wedge(v2\_pre\_poly\ X1))))))\Rightarrow(\forall X2.(v1\_xcmplx\_0\ X2)\Rightarrow((X2 = k7\_nat\_3\ X0\ X1)\Leftrightarrow(\exists X3.(m2\_finseq\_1\ X3\ k2\_numbers)\wedge((X2 = k20\_rvsum\_1\ X3)\wedge(X3 = k3\_relat\_1\ (k1\_uproots\ (k13\_pre\_poly\ X1))\ X1))))) \tag{23}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v4\_valued\_0\ X0))\Rightarrow((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0)) \tag{24}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{25}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{26}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v3\_valued\_0\ X0))\Rightarrow((v1\_relat\_1\ X0)\wedge(v1\_valued\_0\ X0)) \tag{27}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{28}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{29}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))) \tag{30}$$

Theorem 1

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers))\Rightarrow(k6\_moebius1\ (k1\_newton\ X0\ X1) = X0))$$