t39_nat_3 (TMboNnW8VMGzrRsum8PsCAuCYhDi4hwbhZV)

October 27, 2020

Let $k12\_nat\_3 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k16\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $k10\_newton : \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ 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 $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ 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 $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k8\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.k1\_funct\_1\ (k16\_pre\_poly\ X0)\ X1 = k6\_numbers \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge(v1\_partfun1\ X1\ X0))))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ X0)\wedge((v1\_funct\_1\ X2)\wedge(v1\_partfun1\ X2\ X0))))\Rightarrow((\forall X3.(X3 \in X0)\Rightarrow(k1\_funct\_1\ X1\ X3 = k1\_funct\_1\ X2\ X3))\Rightarrow(X1 = X2))) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X0\ X1)\wedge((X1 \neq k6\_numbers)\wedge(k1\_funct\_1\ (k12\_nat\_3\ X1)\ X0 \neq k6\_numbers)))) \tag{3}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(X1 \in k13\_pre\_poly\ (k12\_nat\_3\ X0))\Rightarrow((v7\_ordinal1\ X1)\wedge(v1\_int\_2\ X1))) \tag{4}$$

Assume the following.

$$m1\_subset\_1\ k1\_xboole\_0\ k4\_ordinal1 \tag{5}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{6}$$

Assume the following.

$$\neg v1\_xboole\_0\ np\_\_1 \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge(m1\_subset\_1\ X2\ X0))\Rightarrow(k8\_funcop\_1\ X0\ X1\ X2 = k2\_funcop\_1\ X1\ X2) \tag{8}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{9}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{10}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ (k2\_funcop\_1\ X0\ X1))\wedge((v4\_relat\_1\ (k2\_funcop\_1\ X0\ X1)\ X0)\wedge((v1\_funct\_1\ (k2\_funcop\_1\ X0\ X1))\wedge(v1\_partfun1\ (k2\_funcop\_1\ X0\ X1)\ X0))) \tag{12}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ (k2\_funcop\_1\ X0\ X1))\wedge(v1\_funct\_1\ (k2\_funcop\_1\ X0\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.v4\_relat\_1\ (k2\_funcop\_1\ X0\ X1)\ X0 \tag{15}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_relat\_1\ (k12\_nat\_3\ X0))\wedge((v4\_relat\_1\ (k12\_nat\_3\ X0)\ k10\_newton)\wedge((v1\_funct\_1\ (k12\_nat\_3\ X0))\wedge(v1\_partfun1\ (k12\_nat\_3\ X0)\ k10\_newton)))) \tag{16}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.(X1 = k13\_pre\_poly\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(k1\_funct\_1\ X0\ X2\neq k6\_numbers))) \tag{17}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_int\_2\ X0)\Leftrightarrow((\neg r1\_xxreal\_0\ X0\ np\_\_1)\wedge(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\neg(r1\_int\_1\ X1\ X0)\wedge((X1\neq np\_\_1)\wedge(X1\neq X0)))))) \tag{18}$$

Assume the following.

$$\forall X0.k16\_pre\_poly\ X0 = k8\_funcop\_1\ k5\_numbers\ X0\ k6\_numbers \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{20}$$

Theorem 1 $k12\_nat\_3\ np\_\_1 = k16\_pre\_poly\ k10\_newton$.