t24_nat_3 (TML78xLvT4ztmWA9YrFHF2WQNxYRyz9fe7t)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k11\_nat\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $r1\_nat\_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_0 : \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k23\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_nat\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((r1\_nat\_d\ X0\ k6\_numbers) \wedge (r1\_nat\_d\ np\_\_1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k1\_newton\ X0\ np\_\_1 = X0) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k1\_newton\ X0\ k6\_numbers = np\_\_1) \tag{4}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((\neg r1\_xxreal\_0\ X0\ np\_\_1) \Rightarrow (k11\_nat\_3\ X0\ X0 = np\_\_1)) \tag{5}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((X0 \neq np\_\_1) \Rightarrow (k11\_nat\_3\ np\_\_1\ X0 = k6\_numbers)) \tag{6}$$

Assume the following.

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

Assume the following.

$$k2\_xcmplx\_0\ np\_\_0\ np\_\_1 = np\_\_1 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(\\ (r1\_nat\_d\ X0\ X1)\Leftrightarrow(r1\_int\_1\ X0\ X1)) \tag{9}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(\\ k23\_binop\_2\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(\\ k11\_nat\_3\ X0\ X1 = k10\_nat\_3\ X0\ X1) \tag{12}$$

Assume the following.

$$\exists X0.(v1\_xboole\_0\ X0)\wedge(v1\_xxreal\_0\ X0) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(\\ v7\_ordinal1\ (k10\_nat\_3\ X0\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\neg\\ (X1\neq np\_\_1)\wedge((X0\neq k6\_numbers)\wedge(\neg\forall X2.(v7\_ordinal1\ X2)\Rightarrow\\ ((X2 = k10\_nat\_3\ X0\ X1)\Leftrightarrow((r1\_nat\_d\ (k1\_newton\ X1\ X2)\ X0)\wedge(\neg r1\_nat\_d\\ (k1\_newton\ X1\ (k23\_binop\_2\ X2\ np\_\_1))\ X0))))))) \tag{15}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_int\_2\ X0)\Leftrightarrow((\neg r1\_xxreal\_0\ X0\\ np\_\_1)\wedge(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\neg(r1\_int\_1\ X1\ X0)\wedge((X1\neq\\ np\_\_1)\wedge(X1\neq X0)))))) \tag{16}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{17}$$

Assume the following.

$$\forall X0.((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))\Rightarrow((\neg v1\_xboole\_0\\ X0)\wedge((v7\_ordinal1\ X0)\wedge(v1\_int\_2\ X0))) \tag{18}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((v7\_ordinal1\ X1)\wedge(\\ v1\_int\_2\ X1))\Rightarrow(\neg(X0\neq np\_\_1)\wedge((X0\neq X1)\wedge(k11\_nat\_3\ X1\ X0\neq k6\_numbers))))$$