

t16\_newton  
(TMcN33AoBisB6JPxt6zHsxPTBR6SzsD291r)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_newton : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k21\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  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  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_0 : \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k19\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_finseq\_2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$k21\_rvsum\_1 (k6\_finseq\_1 k1\_numbers) = np\_1 \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k2\_xcmplx\_0 X0 k6\_numbers = X0) \quad (3)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k3\_newton (k1\_nat\_1 X0 np\_1) = k8\_real\_1 (k3\_newton X0) (k1\_nat\_1 X0 np\_1)) \quad (4)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (5)$$

Assume the following.

$$(m2\_subset\_1\ np\_0\ k1\_numbers\ k5\_numbers) \wedge ((m1\_subset\_1\ np\_0\ k5\_numbers) \wedge (m1\_subset\_1\ np\_0\ k1\_numbers)) \quad (6)$$

Assume the following.

$$v1\_xboole\_0\ np\_0 \quad (7)$$

Assume the following.

$$\forall X0 : \iota \Rightarrow o. ((X0\ k6\_numbers) \wedge (\forall X1. (v7\_ordinal1\ X1) \Rightarrow ((X0\ X1) \Rightarrow (X0\ (k1\_nat\_1\ X1\ np\_1)))))) \Rightarrow (\forall X1. (v7\_ordinal1\ X1) \Rightarrow (X0\ X1)) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2. (m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1\ X0\ k1\_numbers) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (k8\_real\_1\ X0\ X1 = k3\_xcmplx\_0\ X0\ X1) \quad (10)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (11)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (12)$$

Assume the following.

$$\forall X0. (m1\_finseq\_1\ X0\ k1\_numbers) \Rightarrow (k21\_rvsum\_1\ X0 = k19\_rvsum\_1\ X0) \quad (13)$$

Assume the following.

$$\forall X0. \forall X1. ((v7\_ordinal1\ X0) \wedge (m1\_subset\_1\ X1\ k5\_numbers)) \Rightarrow (k1\_nat\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \quad (14)$$

Assume the following.

$$\forall X0. \exists X1. (m1\_finseq\_1\ X1\ X0) \wedge ((v1\_relat\_1\ X1) \wedge (v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ X0) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_xboole\_0\ X1) \wedge ((v1\_finset\_1\ X1) \wedge (v1\_finseq\_1\ X1)))))) \quad (15)$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1) \wedge (v3\_ordinal1\ k4\_ordinal1) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(v7\_ordinal1\ (k3\_xcmplx\_0\ X0\ X1)) \quad (17)$$

Assume the following.

$$(v1\_relat\_1\ (k1\_finseq\_2\ k6\_numbers))\wedge((v1\_funct\_1\ (k1\_finseq\_2\ k6\_numbers))\wedge((v1\_xboole\_0\ (k1\_finseq\_2\ k6\_numbers))\wedge(v1\_finseq\_1\ (k1\_finseq\_2\ k6\_numbers)))) \quad (18)$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \quad (19)$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \quad (20)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(m1\_subset\_1\ (k3\_newton\ X0)\ k1\_numbers) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(m1\_subset\_1\ X1\ k5\_numbers))\Rightarrow(m2\_subset\_1\ (k1\_nat\_1\ X0\ X1)\ k1\_numbers\ k5\_numbers) \quad (22)$$

Assume the following.

$$\forall X0.k6\_finseq\_1\ X0 = k1\_xboole\_0 \quad (23)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k3\_newton\ X0 = k19\_rvsum\_1\ (k1\_finseq\_2\ X0)) \quad (24)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \quad (25)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \quad (26)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \quad (27)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(m2\_subset\_1\ (k3\_newton\ X0)\ k1\_numbers\ k5\_numbers)$$