

t11_nat_4
(TMFLMGPu9osrijHGUXgAbQo1QtCerPaT4Be)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (k4_nat_d (k3_xcmplx_0 X0 X1) X2 = k4_nat_d (k4_nat_1 \\ & (k4_nat_d X0 X2) (k4_nat_d X1 X2)) X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow (k1_newton X2 (k2_xcmplx_0 X0 X1) = k3_xcmplx_0 \\ & (k1_newton X2 X0) (k1_newton X2 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 np_1 X0 = X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1_xcmplx_0 X0) \wedge ((v1_xcmplx_0 \\ & X1) \wedge (v1_xcmplx_0 X2))) \Rightarrow (k3_xcmplx_0 (k2_xcmplx_0 X0 X1) X2 = k2_xcmplx_0 \\ & (k3_xcmplx_0 X0 X2) (k3_xcmplx_0 X1 X2)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$k2_xcmplx_0 \ np_1 \ np_1 = np_2 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k5_numbers)\wedge(v7_ordinal1 \ X1))\Rightarrow(k4_nat_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \ X0)\wedge(v7_ordinal1 \ X1))\Rightarrow(v7_ordinal1 \ (k1_newton \ X0 \ X1)) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0)\Rightarrow(v1_xcmplx_0 \ X0) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers)\Rightarrow(v1_xcmplx_0 \ X0) \quad (11)$$

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1 \ X0)\Rightarrow(\forall X1.(v7_ordinal1 \ X1)\Rightarrow(\forall X2. \\ (v7_ordinal1 \ X2)\Rightarrow(k4_nat_d \ (k1_newton \ X0 \ (k4_nat_1 \ np_2 \ X1)) \\ X2 = k4_nat_d \ (k4_nat_1 \ (k4_nat_d \ (k1_newton \ X0 \ X1) \ X2) \ (k4_nat_d \\ (k1_newton \ X0 \ X1) \ X2)) \ X2))) \end{aligned}$$