

t11_catalan1 (TMFRgXcn- BaLy4zFocQvLbURTjMbmzKG9AK1)

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Let $k1_catalan1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_xreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_2 : \iota$ 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 $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k1_xreal_0 X0 X0 = k6_numbers) \quad (1)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k5_newton k6_numbers X0 = np_1) \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$k3_xcmplx_0 np_2 np_1 = np_2 \quad (6)$$

Assume the following.

$$k7_xcmplx_0 \ np_1 \ np_1 = np_1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \ X0)\wedge(v7_ordinal1 \ X1))\Rightarrow(\quad (8)$$

$$k7_nat_d \ X0 \ X1 = k1_xreal_0 \ X0 \ X1)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \ X0)\wedge(v7_ordinal1 \ X1))\Rightarrow(\quad (10)$$

$$k6_newton \ X0 \ X1 = k4_newton \ X0 \ X1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \ X0)\wedge(v7_ordinal1 \ X1))\Rightarrow(\quad (12)$$

$$k5_newton \ X0 \ X1 = k4_newton \ X0 \ X1)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k5_numbers)\wedge(v7_ordinal1 \quad (13)$$

$$X1))\Rightarrow(k4_nat_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(v1_xreal_0 \quad (14)$$

$$X1))\Rightarrow(k10_real_1 \ X0 \ X1 = k7_xcmplx_0 \ X0 \ X1)$$

Assume the following.

$$v6_membered \ k4_ordinal1 \quad (15)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0)\Rightarrow(k1_catalan1 \ X0 = k10_real_1 \ (k6_newton \quad (16)$$

$$(k7_nat_d \ X0 \ np_1) \ (k7_nat_d \ (k4_nat_1 \ np_2 \ X0) \ np_2)) \ X0)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers)\Rightarrow(v1_xreal_0 \ X0) \quad (17)$$

Assume the following.

$$\forall X0.(v6_membered \ X0)\Rightarrow(\forall X1.(m1_subset_1 \ X1 \ X0)\Rightarrow \quad (18)$$

$$(v7_ordinal1 \ X1))$$

Theorem 1 $k1_catalan1 \ np_1 = np_1$.