

t20_catalan1 (TMZPCNoVRTyVn- rcm8CaC419oWTPFRf4q9uW)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_catalan1 : \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\neg (r1_xreal_0 X0 (k1_nat_1 X1 np_1)) \wedge (\neg r1_xreal_0 X0 X1) \wedge (X0 \neq k1_nat_1 X1 np_1)))) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\neg (\neg (X0 = k6_numbers) \wedge (X1 \neq k6_numbers)) \wedge (k1_newton X0 X1 = k6_numbers)) \wedge (\neg (k1_newton X0 X1 \neq k6_numbers) \wedge ((X0 = k6_numbers) \wedge (X1 \neq k6_numbers))))) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg (X0 \neq k6_numbers) \wedge (\forall X1.(v7_ordinal1 X1) \Rightarrow (X0 \neq k1_nat_1 X1 np_1))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k1_newton X0 k6_numbers = np_1) \quad (4)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg (k6_numbers \neq X0) \wedge (r1_xreal_0 X0 k6_numbers)) \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg (r1_xreal_0 X0 np_1) \wedge ((X0 \neq k6_numbers) \wedge (X0 \neq np_1))) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k2_xcmplx_0 X0 \ k6_numbers = X0) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\neg r1_xxreal_0 (k2_xcmplx_0 X0 X1) X0) \Leftrightarrow (r1_xxreal_0 np_1 X1))) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (r1_xxreal_0 (k1_catalan1 X0) (k1_catalan1 (k1_nat_1 X0 np_1))) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(\neg r1_xxreal_0 X0 np_1) \wedge (r1_xxreal_0 (k1_catalan1 (k1_nat_1 X0 np_1)) (k1_catalan1 X0))) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((\neg r1_xxreal_0 np_1 X0) \Rightarrow (X0 = k6_numbers)) \quad (11)$$

Assume the following.

$$k1_catalan1 np_1 = np_1 \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k1_newton X0 X1)) \quad (13)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v7_ordinal1 (k1_catalan1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (m1_subset_1 (k1_catalan1 X0) k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (16)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge (r1_xxreal_0 (k1_catalan1 X0) k6_numbers))$$