

l31_sin_cos8

(TMXyVQXC8Gc6dceN3GC38BgYQaN8pUeJrqb)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_sin_cos2 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_sin_cos2 : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_sin_cos2 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 X1) \wedge ((\neg v3_xxreal_0 X1) \wedge (\neg v2_xxreal_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 \ k6_numbers = k6_numbers) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((k1_seq_1 \ k4_sin_cos2 \ X0 \neq k6_numbers) \wedge ((\neg r1_xxreal_0 (k1_seq_1 \ k4_sin_cos2 \ X0) \ k6_numbers) \wedge (k1_seq_1 \ k4_sin_cos2 \ k6_numbers = np_1))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 \ (k4_xcmplx_0 \ np_1) = k4_xcmplx_0 X0) \quad (4)$$

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.

$$\forall X0.k6_sin_cos2 \ X0 = k5_sin_cos2 \ X0 \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k2_xcmplx_0 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 X0)\wedge(v1_xreal_0 X0))\Rightarrow((v1_xcmplx_0 (k4_xcmplx_0 X0))\wedge(\neg v2_xxreal_0 (k4_xcmplx_0 X0))) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2_xxreal_0 X0)\wedge(v1_xreal_0 X0))\Rightarrow((v1_xcmplx_0 (k4_xcmplx_0 X0))\wedge(\neg v3_xxreal_0 (k4_xcmplx_0 X0))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(((v2_xxreal_0 X0)\wedge(v1_xreal_0 X0))\wedge(\neg v3_xxreal_0 X1)\wedge(v1_xreal_0 X1))\Rightarrow(v2_xxreal_0 (k2_xcmplx_0 X1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.m1_subset_1 (k6_sin_cos2 X0) k1_numbers \quad (12)$$

Assume the following.

$$\forall X0.k5_sin_cos2 X0 = k1_seq_1 k4_sin_cos2 X0 \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k3_xcmplx_0 X0 X1 = k3_xcmplx_0 X1 X0) \quad (14)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0)\wedge(v3_xxreal_0 X0))\Rightarrow((\neg v1_xboole_0 X0)\wedge((v1_xxreal_0 X0)\wedge(\neg v2_xxreal_0 X0))) \quad (15)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xcmplx_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (18)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(k2_xcmplx_0 np_1 (k2_xcmplx_0 (k6_sin_cos2 X0) (k6_sin_cos2 X0))\neq k6_numbers)$$