

l14_sin_cos6

(TMGNaReuVxHq8d4H5SpadQbMTh2YzbKv4a3)

October 27, 2020

Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $np_2 : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ 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. Let $np_0 : \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (r1_xxreal_0 (k2_xcmplx_0 \\ & X0 X2) (k2_xcmplx_0 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\begin{aligned} & (\neg r1_xxreal_0 (k10_real_1 k32_sin_cos np_2) k6_numbers) \wedge ((\\ & \neg r1_xxreal_0 k32_sin_cos (k10_real_1 k32_sin_cos np_2)) \wedge ((\\ & \neg r1_xxreal_0 k32_sin_cos k6_numbers) \wedge ((\neg r1_xxreal_0 (k10_real_1 \\ & k32_sin_cos np_2) (k1_real_1 (k10_real_1 k32_sin_cos np_2))) \wedge \\ & ((\neg r1_xxreal_0 (k8_real_1 np_2 k32_sin_cos) k32_sin_cos) \wedge (\\ & (\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_2) k32_sin_cos) \\ & (k10_real_1 k32_sin_cos np_2)) \wedge ((\neg r1_xxreal_0 k6_numbers (\\ & k1_real_1 (k10_real_1 k32_sin_cos np_2))) \wedge ((\neg r1_xxreal_0 (\\ & k8_real_1 np_2 k32_sin_cos) k6_numbers) \wedge ((\neg r1_xxreal_0 (k8_real_1 \\ & (k10_real_1 np_3 np_2) k32_sin_cos) k32_sin_cos) \wedge ((\neg r1_xxreal_0 \\ & (k8_real_1 np_2 k32_sin_cos) (k8_real_1 (k10_real_1 np_3 np_2) \\ & k32_sin_cos)) \wedge (\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_2) \\ & k32_sin_cos) k6_numbers)))))))))) \end{aligned} \quad (3)$$

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.

$$\begin{aligned} & (m2_subset_1 \ np_0 \ k1_numbers \ k5_numbers) \wedge ((m1_subset_1 \ np_0 \\ & \quad k5_numbers) \wedge (m1_subset_1 \ np_0 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \\ & \quad X1)) \Rightarrow (k7_real_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \end{aligned} \quad (8)$$

Assume the following.

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

Assume the following.

$$k32_sin_cos = k31_sin_cos \quad (10)$$

Assume the following.

$$(v1_xreal_0 \ k31_sin_cos) \wedge (\neg v3_xxreal_0 \ k31_sin_cos) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \\ & \quad X1)) \Rightarrow (m1_subset_1 \ (k8_real_1 \ X0 \ X1) \ k1_numbers) \end{aligned} \quad (12)$$

Assume the following.

$$m1_subset_1 \ k32_sin_cos \ k1_numbers \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \\ & \quad X1)) \Rightarrow (m1_subset_1 \ (k10_real_1 \ X0 \ X1) \ k1_numbers) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \\ & \quad X1)) \Rightarrow (k8_real_1 \ X0 \ X1 = k8_real_1 \ X1 \ X0) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (16)$$

Theorem 1

$$\neg r1_{xxreal_0} (k7_{real_1} (k10_{real_1} k32_{sin_cos} np_{-2}) (k8_{real_1} (k8_{real_1} np_{-2} k32_{sin_cos}) np_{-1})) (k7_{real_1} k6_{numbers} (k8_{real_1} (k8_{real_1} np_{-2} k32_{sin_cos}) np_{-1}))$$