

t72_sin_cos6 (TMVLBcY-
BuwXLaQ8a8vVwRvaPxt3KD7YPnEE)

October 27, 2020

Let $k3_sin_cos6 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ 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 $k21_sin_cos : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k18_sin_cos : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_sin_cos : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k1_comp trig : \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ 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 $k2_sin_cos6 : \iota \Rightarrow \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sin_cos6 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & (k21_sin_cos (k10_real_1 k32_sin_cos np_2) = k6_numbers) \wedge ((\\
 & k18_sin_cos (k10_real_1 k32_sin_cos np_2) = np_1) \wedge ((k21_sin_cos \\
 & k32_sin_cos = k1_real_1 np_1) \wedge ((k18_sin_cos k32_sin_cos = k6_numbers) \wedge \\
 & ((k21_sin_cos (k7_real_1 k32_sin_cos (k10_real_1 k32_sin_cos \\
 & np_2)) = k6_numbers) \wedge ((k18_sin_cos (k7_real_1 k32_sin_cos (\\
 & k10_real_1 k32_sin_cos np_2)) = k1_real_1 np_1) \wedge ((k21_sin_cos \\
 & (k8_real_1 np_2 k32_sin_cos) = np_1) \wedge (k18_sin_cos (k8_real_1 \\
 & np_2 k32_sin_cos) = k6_numbers))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$k3_sin_cos6 (k1_real_1 np_1) = k1_real_1 (k10_real_1 k32_sin_cos np_2) \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 (k1_real_1 (k10_real_1 \\
 & k32_sin_cos np_2)) X0) \wedge (r1_xxreal_0 X0 (k10_real_1 k32_sin_cos \\
 & np_2))) \Rightarrow (k3_sin_cos6 (k17_sin_cos X0) = X0))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& (\neg r1_xxreal_0 (k10_real_1 k32_sin_cos np_2) k6_numbers) \wedge ((\\
& \neg r1_xxreal_0 k32_sin_cos (k10_real_1 k32_sin_cos np_2)) \wedge ((\\
& \neg r1_xxreal_0 k32_sin_cos k6_numbers) \wedge ((\neg r1_xxreal_0 (k10_real_1 \\
& k32_sin_cos np_2) (k1_real_1 (k10_real_1 k32_sin_cos np_2))) \wedge \\
& ((\neg r1_xxreal_0 (k8_real_1 np_2 k32_sin_cos) k32_sin_cos) \wedge (\\
& (\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_2) k32_sin_cos) \\
& (k10_real_1 k32_sin_cos np_2)) \wedge ((\neg r1_xxreal_0 k6_numbers (\\
& k1_real_1 (k10_real_1 k32_sin_cos np_2))) \wedge ((\neg r1_xxreal_0 (\\
& k8_real_1 np_2 k32_sin_cos) k6_numbers) \wedge ((\neg r1_xxreal_0 (k8_real_1 \\
& (k10_real_1 np_3 np_2) k32_sin_cos) k32_sin_cos) \wedge ((\neg r1_xxreal_0 \\
& (k8_real_1 np_2 k32_sin_cos) (k8_real_1 (k10_real_1 np_3 np_2) \\
& k32_sin_cos)) \wedge (\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_2) \\
& k32_sin_cos) k6_numbers))))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$k1_comptrig k7_complex1 = k10_real_1 k32_sin_cos np_2 \tag{5}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0. k3_sin_cos6 X0 = k2_sin_cos6 X0 \tag{7}$$

Assume the following.

$$k32_sin_cos = k31_sin_cos \tag{8}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \tag{9}$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (k18_sin_cos X0 = k17_sin_cos X0) \tag{10}$$

Assume the following.

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow (k4_xcmplx_0 (k4_xcmplx_0 X0) = X0) \tag{11}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge \\
& (v1_xreal_0 (k4_xcmplx_0 X0)))
\end{aligned} \tag{12}$$

Assume the following.

$$\forall X0. m1_subset_1 (k3_sin_cos6 X0) k1_numbers \quad (13)$$

Assume the following.

$$m1_subset_1 k32_sin_cos k1_numbers \quad (14)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 X0) k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k10_real_1 X0 X1) k1_numbers) \quad (16)$$

Assume the following.

$$\forall X0. k2_sin_cos6 X0 = k1_seq_1 k1_sin_cos6 X0 \quad (17)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow ((r1_xreal_0 X0 X1) \vee (r1_xreal_0 X1 X0)) \quad (18)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (v1_xreal_0 X0) \quad (19)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (20)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (21)$$

Theorem 1 $k3_sin_cos6 np_1 = k10_real_1 k32_sin_cos np_2$.