

t70_sin_cos6 (TMc-
FALSA2kb1Dk9inXNcHkBFgbMpPNCwUXD)

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Let $k3_sin_cos6 : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ 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 $k18_sin_cos : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_sin_cos : \iota$ 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 $k6_numbers : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$(k18_sin_cos (k1_real_1 (k10_real_1 k32_sin_cos np_2))) = k1_real_1 \\ np_1) \wedge (k1_seq_1 k16_sin_cos (k1_real_1 (k10_real_1 k32_sin_cos \\ np_2))) = k1_real_1 np_1 \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 (k1_real_1 (k10_real_1 \\ k32_sin_cos np_2)) X0) \wedge (r1_xxreal_0 X0 (k10_real_1 k32_sin_cos \\ np_2))) \Rightarrow (k3_sin_cos6 (k17_sin_cos X0) = X0)) \quad (2)$$

Assume the following.

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

Assume the following.

$$k1_comptrig k7_complex1 = k10_real_1 k32_sin_cos np_2 \tag{4}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. k3_sin_cos6 X0 = k2_sin_cos6 X0 \tag{6}$$

Assume the following.

$$k32_sin_cos = k31_sin_cos \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 \\
& X1)) \Rightarrow (k10_real_1 X0 X1 = k7_xcmplx_0 X0 X1)
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 \\
& (k7_xcmplx_0 X0 X1))
\end{aligned} \tag{9}$$

Assume the following.

$$m1_subset_1 k32_sin_cos k1_numbers \tag{10}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 \\
& X0) k1_numbers)
\end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k10_real_1 X0 X1) k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(k17_sin_cos X0 = k1_seq_1 k16_sin_cos X0) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow((r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (15)$$

Assume the following.

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

Theorem 1 $k3_sin_cos6 (k1_real_1 np_1) = k1_real_1 (k10_real_1 k32_sin_cos np_2)$.