

t31_sin_cos6

(TMJnV6N8GL9eBZ8DQNK4fjWfa6ggqZwmtYJd)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $k17_sin_cos : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k21_sin_cos : \iota \Rightarrow \iota$ be given. Let $k18_sin_cos : \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ 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 $v3_membered : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ 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.

$$\begin{aligned}
& (\neg r1_xxreal_0 (k10_real_1 k32_sin_cos np_2) k6_numbers) \wedge ((\\
& \neg r1_xxreal_0 k32_sin_cos (k10_real_1 k32_sin_cos np_2)) \wedge ((\\
& \neg r1_xxreal_0 k32_sin_cos k6_numbers) \wedge ((\neg r1_xxreal_0 (k10_real_1 \\
& k32_sin_cos np_2) (k1_real_1 (k10_real_1 k32_sin_cos np_2))) \wedge \\
& ((\neg r1_xxreal_0 (k8_real_1 np_2 k32_sin_cos) k32_sin_cos) \wedge (\\
& (\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_2) k32_sin_cos) \\
& (k10_real_1 k32_sin_cos np_2)) \wedge ((\neg r1_xxreal_0 k6_numbers (\\
& k1_real_1 (k10_real_1 k32_sin_cos np_2))) \wedge ((\neg r1_xxreal_0 (\\
& k8_real_1 np_2 k32_sin_cos) k6_numbers) \wedge ((\neg r1_xxreal_0 (k8_real_1 \\
& (k10_real_1 np_3 np_2) k32_sin_cos) k32_sin_cos) \wedge ((\neg r1_xxreal_0 \\
& (k8_real_1 np_2 k32_sin_cos) (k8_real_1 (k10_real_1 np_3 np_2) \\
& k32_sin_cos)) \wedge (\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_2) \\
& k32_sin_cos) k6_numbers)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (r1_xxreal_0 (k1_real_1 np_1) (k17_sin_cos X0)) \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\
& (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\
& (r1_xxreal_0 X0 X2))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \wedge ((\\
& r1_xxreal_0 X0 (k8_real_1 np_2 k32_sin_cos)) \wedge (k17_sin_cos X0 = \\
& k1_real_1 np_1))) \Rightarrow (X0 = k8_real_1 (k10_real_1 np_3 np_2) k32_sin_cos))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\
& (r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (v1_xxreal_0 (k17_sin_cos X0)) \tag{9}$$

Assume the following.

$$v3_membered\ k1_numbers \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers)\wedge(v1_xreal_0\ X1))\Rightarrow(m1_subset_1\ (k8_real_1\ X0\ X1)\ k1_numbers) \quad (11)$$

Assume the following.

$$m1_subset_1\ k32_sin_cos\ k1_numbers \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(m1_subset_1\ (k21_sin_cos\ X0)\ k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers)\wedge(v1_xreal_0\ X1))\Rightarrow(m1_subset_1\ (k10_real_1\ X0\ X1)\ k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0\ X0)\wedge(v1_xxreal_0\ X1))\Rightarrow((r1_xxreal_0\ X0\ X1)\vee(r1_xxreal_0\ X1\ X0)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers)\wedge(v1_xreal_0\ X1))\Rightarrow(k8_real_1\ X0\ X1 = k8_real_1\ X1\ X0) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (17)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(v2_membered\ X0) \quad (18)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(v1_xreal_0\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v2_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v1_xxreal_0\ X1)) \quad (20)$$

Theorem 1

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(\neg(r1_xxreal_0\ k6_numbers\ X0)\wedge(\neg(r1_xxreal_0\ (k8_real_1\ (k10_real_1\ np_3\ np_2)\ k32_sin_cos)\ X0)\wedge(r1_xxreal_0\ (k17_sin_cos\ X0)\ (k1_real_1\ np_1))))$$