

t65_sin_cos9

(TMLo8ho7Q9TpNTQkuhaakVUzsRXG3TzywVe)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_sin_cos9 : \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $np_4 : \iota$ be given. Let $k21_sin_cos : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k18_sin_cos : \iota \Rightarrow \iota$ 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 $k1_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sin_cos9 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k29_sin_cos : \iota$ 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 $k5_numbers : \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ 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.

$$\begin{aligned}
 & \forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (((r1_xxreal_0 (k1_real_1 \\
 & np_1) X0) \wedge (r1_xxreal_0 X0 np_1)) \Rightarrow ((r1_xxreal_0 (k1_real_1 \\
 & (k10_real_1 k32_sin_cos np_4)) (k5_sin_cos9 X0)) \wedge (r1_xxreal_0 \\
 & (k5_sin_cos9 X0) (k10_real_1 k32_sin_cos np_4))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (((r1_xxreal_0 (k1_real_1 \\
 & np_1) X0) \wedge ((r1_xxreal_0 X0 np_1) \wedge (k5_sin_cos9 X0 = k10_real_1 \\
 & k32_sin_cos np_4))) \Rightarrow (X0 = np_1))
 \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((r1_xxreal_0 (k1_real_1 np_1) X0) \wedge (r1_xxreal_0 X0 np_1)) \Rightarrow (k1_sin_cos4 (k5_sin_cos9 X0) = X0) \quad (4)$$

Assume the following.

$$(k5_sin_cos9 np_1 = k10_real_1 k32_sin_cos np_4) \wedge (k1_seq_1 k1_sin_cos9 np_1 = k10_real_1 k32_sin_cos np_4) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (6)$$

Assume the following.

$$(k1_seq_1 k29_sin_cos (k1_real_1 (k10_real_1 k32_sin_cos np_4)) = k1_real_1 np_1) \wedge (k1_sin_cos4 (k1_real_1 (k10_real_1 k32_sin_cos np_4)) = k1_real_1 np_1) \quad (7)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (9)$$

Assume the following.

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

Assume the following.

$$v3_membered k1_numbers \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k5_sin_cos9 X0) k1_numbers) \quad (12)$$

Assume the following.

$$v1_xxreal_0 k31_sin_cos \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k1_real_1 X0) k1_numbers) \quad (14)$$

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.

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

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (17)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow (v1_xxreal_0 X1)) \quad (19)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(\neg(\neg r1_xxreal_0 X0 (k1_real_1 np_1))\wedge(\neg r1_xxreal_0 np_1 X0)\wedge(\neg(\neg r1_xxreal_0 (k5_sin_cos9 X0) (k1_real_1 (k10_real_1 k32_sin_cos np_4))))\wedge(\neg r1_xxreal_0 (k10_real_1 k32_sin_cos np_4) (k5_sin_cos9 X0))))$$