

t38_sin_cos9
(TMdCL5dsYprASxeeQe5jQLqdrvMaxXJsfV3)

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Let $k6_sin_cos9 : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ 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 $np_4 : \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_sin_cos9 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k30_sin_cos : \iota$ be given. Let $k2_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_sin_cos9 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $v4_membered : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow ((X0 \in k4_xxreal_1 X1 X2) \Leftrightarrow ((\neg r1_xxreal_0 X0 X1) \wedge \\ & (\neg r1_xxreal_0 X2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge \\ & ((\neg r1_xxreal_0 k32_sin_cos X0) \wedge (\neg(k6_sin_cos9 (k1_seq_1 k30_sin_cos \\ & X0) = X0) \wedge (k6_sin_cos9 (k2_sin_cos4 X0) = X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \tag{4}$$

Assume the following.

$$\begin{aligned}
& (k1_seq_1 \ k30_sin_cos \ (k10_real_1 \ k32_sin_cos \ np_4) = np_1) \wedge \\
& ((k2_sin_cos4 \ (k10_real_1 \ k32_sin_cos \ np_4) = np_1) \wedge ((k1_seq_1 \\
& \quad k30_sin_cos \ (k8_real_1 \ (k10_real_1 \ np_3 \ np_4) \ k32_sin_cos) = \\
& \quad k1_real_1 \ np_1) \wedge (k2_sin_cos4 \ (k8_real_1 \ (k10_real_1 \ np_3 \ np_4) \\
& \quad \quad k32_sin_cos) = k1_real_1 \ np_1)))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (k6_sin_cos9 \ X0 = k4_sin_cos9 \ X0) \tag{6}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{7}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{8}$$

Assume the following.

$$k32_sin_cos = k31_sin_cos \tag{9}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (\\
\quad k2_rcomp_1 \ X0 \ X1 = k4_xxreal_1 \ X0 \ X1) \tag{10}$$

Assume the following.

$$\begin{aligned}
& k8_real_1 \ (k10_real_1 \ np_3 \ np_4) \ k32_sin_cos \in k2_rcomp_1 \ k6_numbers \\
& \quad k32_sin_cos
\end{aligned} \tag{11}$$

Assume the following.

$$v6_membered \ k4_ordinal1 \tag{12}$$

Assume the following.

$$v1_xreal_0 \ k31_sin_cos \tag{13}$$

Assume the following.

$$\begin{aligned}
& (v1_funct_1 \ k30_sin_cos) \wedge (m1_subset_1 \ k30_sin_cos \ (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 \ k1_numbers \ k1_numbers)))
\end{aligned} \tag{14}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (\\
\quad m1_subset_1 \ (k2_rcomp_1 \ X0 \ X1) \ (k1_zfmisc_1 \ k1_numbers)) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow(m1_subset_1 (k1_seq_1 X0 X1) k1_numbers) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(k4_sin_cos9 X0 = k1_seq_1 k2_sin_cos9 X0) \quad (17)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (18)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (19)$$

Assume the following.

$$\forall X0.(v4_membered X0)\Rightarrow(v3_membered X0) \quad (20)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v5_relat_1 X0 k1_numbers))\Rightarrow((v1_relat_1 X0)\wedge(v3_valued_0 X0)) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \quad (22)$$

Assume the following.

$$\forall X0.(v5_membered X0)\Rightarrow(v4_membered X0) \quad (23)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (24)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (25)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(v5_membered X0) \quad (26)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v1_xxreal_0 X1)) \quad (27)$$

Theorem 1

$$(k6_sin_cos9 (k1_real_1 np_1) = k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos)\wedge(k1_seq_1 k2_sin_cos9 (k1_real_1 np_1) = k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos)$$