

t74_sincos10

(TMcP3hvMxvHPqihvjmAUE1VBGnimHMFws4)

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Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_sincos10 : \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ 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 $np_1 : \iota$ be given. 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 $k10_sincos10 : \iota \Rightarrow \iota$ be given. Let $k1_fdiff_9 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k3_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k4_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $k6_sincos10 : \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((r1_xxreal_0 X0 k32_sin_cos) \Rightarrow \\ ((r1_xxreal_0 X0 (k10_real_1 k32_sin_cos np_2)) \vee (k10_sincos10 \\ (k1_seq_1 k1_fdiff_9 X0) = X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\begin{aligned} (k1_seq_1 k1_fdiff_9 k6_numbers = np_1) \wedge ((k1_seq_1 k1_fdiff_9 \\ (k10_real_1 k32_sin_cos np_4) = k7_square_1 np_2) \wedge ((k1_seq_1 \\ k1_fdiff_9 (k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos) = \\ k1_real_1 (k7_square_1 np_2)) \wedge (k1_seq_1 k1_fdiff_9 k32_sin_cos = \\ k1_real_1 np_1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow ((X0 \in k3_xxreal_1 X1 X2) \Leftrightarrow ((\neg r1_xxreal_0 X0 X1) \wedge \\ & (r1_xxreal_0 X0 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (k4_rcomp_1 X0 X1 = k3_xxreal_1 X0 X1) \quad (7)$$

Assume the following.

$$k32_sin_cos = k31_sin_cos \quad (8)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (k10_sincos10 X0 = k6_sincos10 X0) \quad (9)$$

Assume the following.

$$\begin{aligned} & (k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos \in k4_rcomp_1 (\\ & k10_real_1 k32_sin_cos np_2) k32_sin_cos) \wedge (k32_sin_cos \in k4_rcomp_1 \\ & (k10_real_1 k32_sin_cos np_2) k32_sin_cos) \end{aligned} \quad (10)$$

Assume the following.

$$v3_membered k1_numbers \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k4_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (12)$$

Assume the following.

$$m1_subset_1 k32_sin_cos k1_numbers \quad (13)$$

Assume the following.

$$v1_xreal_0 k31_sin_cos \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow(m1_subset_1 (k1_seq_1 X0 X1) k1_numbers) \quad (15)$$

Assume the following.

$$(v1_funct_1 k1_fdiff_9)\wedge(m1_subset_1 k1_fdiff_9 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers))) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k10_real_1 X0 X1) k1_numbers) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(k6_sincos10 X0 = k1_seq_1 k2_sincos10 X0) \quad (18)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (19)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered X1)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v3_valued_0 X2)) \quad (22)$$

Theorem 1

$$(k1_seq_1 k2_sincos10 (k1_real_1 (k7_square_1 np_2)) = k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos)\wedge(k1_seq_1 k2_sincos10 (k1_real_1 np_1) = k32_sin_cos)$$