

t76_sincos10
(TMQ7kT4TEgUZvPUdqTuMzvJZZPnuEBxwjh9)

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Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_sincos10 : \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ 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 $np_1 : \iota$ 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 $k6_numbers : \iota$ be given. Let $k12_sincos10 : \iota \Rightarrow \iota$ be given. Let $k2_fdiff_9 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ 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 $k8_sincos10 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((r1_xxreal_0 X0 (k10_real_1 \\ k32_sin_cos np_2)) \Rightarrow ((r1_xxreal_0 X0 k6_numbers) \vee (k12_sincos10 \\ (k1_seq_1 k2_fdiff_9 X0) = X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (3)$$

Assume the following.

$$\begin{aligned} (k1_seq_1 k2_fdiff_9 (k1_real_1 (k10_real_1 k32_sin_cos np_2)) = \\ k1_real_1 np_1) \wedge ((k1_seq_1 k2_fdiff_9 (k1_real_1 (k10_real_1 \\ k32_sin_cos np_4)) = k1_real_1 (k7_square_1 np_2)) \wedge ((k1_seq_1 \\ k2_fdiff_9 (k10_real_1 k32_sin_cos np_4) = k7_square_1 np_2) \wedge \\ (k1_seq_1 k2_fdiff_9 (k10_real_1 k32_sin_cos np_2) = np_1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow ((X0 \in k3_xxreal_1 X1 X2) \Leftrightarrow ((\neg r1_xxreal_0 X0 X1) \wedge \\ & (r1_xxreal_0 X0 X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (8)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (k4_rcomp_1 X0 X1 = k3_xxreal_1 X0 X1) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k12_sincos10 X0 = k8_sincos10 X0) \quad (11)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge (v1_xxreal_0 X0) \quad (12)$$

Assume the following.

$$\begin{aligned} & (k10_real_1 k32_sin_cos np_4 \in k4_rcomp_1 k6_numbers (k10_real_1 \\ & k32_sin_cos np_2)) \wedge (k10_real_1 k32_sin_cos np_2 \in k4_rcomp_1 \\ & k6_numbers (k10_real_1 k32_sin_cos np_2)) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k7_square_1 X0) k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k4_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (15)$$

Assume the following.

$$m1_subset_1 k32_sin_cos k1_numbers \quad (16)$$

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.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(k8_sincos10 X0 = k1_seq_1 k4_sincos10 X0) \quad (18)$$

Assume the following.

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

Assume the following.

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

Theorem 1

$$(k1_seq_1 k4_sincos10 (k7_square_1 np_2) = k10_real_1 k32_sin_cos np_4)\wedge(k1_seq_1 k4_sincos10 np_1 = k10_real_1 k32_sin_cos np_2)$$