

t47_sin_cos6
(TMXeTy16LyNGqSecb8UcWZihsArz9hJqLwL)

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Let $k7_reset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k16_sin_cos : \iota$ be given. Let $k1_rcomp.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $np_2 : \iota$ be given. Let $k8_real.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k1_real.1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k10_xtuple.0 : \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $k5_relat.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relat.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & k10_xtuple.0 (k2_partfun1 k1_numbers k1_numbers k16_sin_cos \\ & (k1_rcomp.1 (k10_real.1 k32_sin_cos np_2) (k8_real.1 (k10_real.1 \\ & np_3 np_2) k32_sin_cos))) = k1_rcomp.1 (k1_real.1 np_1) np_1 \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat.1 X1) \Rightarrow (k10_xtuple.0 (k5_relat.1 X1 X0) = k7_relat.1 X1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (m1_subset.1 X2 (\\ & k1_zfmisc.1 (k2_zfmisc.1 X0 X1))) \Rightarrow (k7_reset.1 X0 X1 X2 X3 = k7_relat.1 \\ & X2 X3) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct.1 X2) \wedge \\ & (m1_subset.1 X2 (k1_zfmisc.1 (k2_zfmisc.1 X0 X1)))) \Rightarrow (k2_partfun1 \\ & X0 X1 X2 X3 = k5_relat.1 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & (v1_funct.1 k16_sin_cos) \wedge ((v1_funct.2 k16_sin_cos k1_numbers \\ & k1_numbers) \wedge (m1_subset.1 k16_sin_cos (k1_zfmisc.1 (k2_zfmisc.1 \\ & k1_numbers k1_numbers)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (6)$$

Theorem 1

$$k7_relset_1 k1_numbers k1_numbers k16_sin_cos (k1_rcomp_1 (k10_real_1 k32_sin_cos np_2) (k8_real_1 (k10_real_1 np_3 np_2) k32_sin_cos)) = k1_rcomp_1 (k1_real_1 np_1) np_1$$