

t89_sin_cos6

(TMQS2DRW6T8dqi9CtT3nXVHZdFBvvjuC7LE)

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Let $k4_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k5_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_sin_cos : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $k4_sin_cos6 : \iota$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funct_1 : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ 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 $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$k2_relset_1 \ k1_numbers \ k4_sin_cos6 = k1_rcomp_1 \ k6_numbers \ k32_sin_cos \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 \ X0) \wedge (v1_funct_1 \ X0)) \Rightarrow ((v2_funct_1 \ X0) \Rightarrow \\ ((k3_relat_1 \ X0 \ (k2_funct_1 \ X0) = k4_relat_1 \ (k9_xtuple_0 \ X0)) \wedge \\ (k3_relat_1 \ (k2_funct_1 \ X0) \ X0 = k4_relat_1 \ (k10_xtuple_0 \ X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.k6_partfun1 \ X0 = k4_relat_1 \ X0 \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ ((m1_subset_1 \ X4 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \wedge (m1_subset_1 \\ X5 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X2 \ X3)))) \Rightarrow (k4_relset_1 \ X0 \ X1 \ X2 \ X3 \\ X4 \ X5 = k3_relat_1 \ X4 \ X5) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 \ X1) \wedge (v5_relat_1 \ X1 \ X0)) \Rightarrow (k2_relset_1 \ X0 \ X1 = k10_xtuple_0 \ X1) \quad (5)$$

Assume the following.

$$k2_funct_1 k4_sin_cos6 = k5_relset_1 k1_numbers k1_numbers k19_sin_cos \\ (k1_rcomp_1 k6_numbers k32_sin_cos) \quad (6)$$

Assume the following.

$$(v1_funct_1 k4_sin_cos6) \wedge (v2_funct_1 k4_sin_cos6) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (\\ k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (m1_subset_1 (k5_relset_1 \\ X0 X1 X2 X3) (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \quad (8)$$

Assume the following.

$$(v1_funct_1 k4_sin_cos6) \wedge (m1_subset_1 k4_sin_cos6 (k1_zfmisc_1 \\ (k2_zfmisc_1 k1_numbers k1_numbers))) \quad (9)$$

Assume the following.

$$(v1_funct_1 k19_sin_cos) \wedge ((v1_funct_2 k19_sin_cos k1_numbers \\ k1_numbers) \wedge (m1_subset_1 k19_sin_cos (k1_zfmisc_1 (k2_zfmisc_1 \\ k1_numbers k1_numbers)))) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (12)$$

Theorem 1

$$k4_relset_1 k1_numbers k1_numbers k1_numbers k1_numbers (k5_relset_1 \\ k1_numbers k1_numbers k19_sin_cos (k1_rcomp_1 k6_numbers k32_sin_cos)) \\ k4_sin_cos6 = k6_partfun1 (k1_rcomp_1 k6_numbers k32_sin_cos)$$