

t59_sin_cos6

(TMLP3ZpJwvZ5HvZDu54dz257cxxqyVbC8oY)

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Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k5_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k19_sin_cos : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_valued_0 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (((v5_valued_0 (k2_partfun1 \\ k1_numbers k1_numbers X1 X0)) \vee (v6_valued_0 (k2_partfun1 k1_numbers \\ k1_numbers X1 X0))) \Rightarrow (v2_funct_1 (k2_partfun1 k1_numbers k1_numbers \\ X1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_int_1 X0) \Rightarrow (v6_valued_0 (k5_relset_1 k1_numbers \\ k1_numbers k19_sin_cos (k1_rcomp_1 (k8_real_1 (k8_real_1 np_2 \\ k32_sin_cos) X0) (k7_real_1 k32_sin_cos (k8_real_1 (k8_real_1 \\ np_2 k32_sin_cos) X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (\\ k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (k5_relset_1 X0 X1 X2 X3 = k5_relat_1 \\ X2 X3) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X2) \wedge \\ (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_partfun1 \\ X0 X1 X2 X3 = k5_relat_1 X2 X3) \end{aligned} \tag{4}$$

Assume the following.

$$(v1_funct_1\ k19_sin_cos) \wedge ((v1_funct_2\ k19_sin_cos\ k1_numbers\ k1_numbers) \wedge (m1_subset_1\ k19_sin_cos\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))) \quad (5)$$

Theorem 1

$$\forall X0.(v1_int_1\ X0) \Rightarrow (v2_funct_1\ (k5_relset_1\ k1_numbers\ k1_numbers\ k19_sin_cos\ (k1_rcomp_1\ (k8_real_1\ (k8_real_1\ np_2\ k32_sin_cos)\ X0)\ (k7_real_1\ k32_sin_cos\ (k8_real_1\ (k8_real_1\ np_2\ k32_sin_cos)\ X0))))))$$