

l43_sin_cos9

(TMWjS94TSFPJr6i82mSkMABPQtRsJfe2hQF)

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Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k29_sin_cos : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $np_4 : \iota$ 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 $v6_valued_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k5_relat_1 (k5_relat_1 X1 X0) X0 = k5_relat_1 X1 X0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X2) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_partfun1 \\ & X0 X1 X2 X3 = k5_relat_1 X2 X3) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & v5_valued_0 (k2_partfun1 k1_numbers k1_numbers (k2_partfun1 \\ & k1_numbers k1_numbers k29_sin_cos (k1_rcomp_1 (k1_real_1 (k10_real_1 \\ & k32_sin_cos np_4)) (k10_real_1 k32_sin_cos np_4))) (k1_rcomp_1 \\ & (k1_real_1 (k10_real_1 k32_sin_cos np_4)) (k10_real_1 k32_sin_cos \\ & np_4))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_funct_1 X2)\wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))\Rightarrow((v1_funct_1 \\ & (k2_partfun1 X0 X1 X2 X3))\wedge(m1_subset_1 (k2_partfun1 X0 X1 X2 X3) \\ & (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$(v1_funct_1 k29_sin_cos)\wedge(m1_subset_1 k29_sin_cos (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (7)$$

Theorem 1

$$\begin{aligned} & v2_funct_1 (k2_partfun1 k1_numbers k1_numbers k29_sin_cos (k1_rcomp_1 \\ & (k1_real_1 (k10_real_1 k32_sin_cos np_4)) (k10_real_1 k32_sin_cos \\ & np_4))) \end{aligned}$$