

l44_sin_cos9

(TMS6ssiMDFKQUSbnn6S4U9uhTabRbBc4GzR)

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Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k30_sin_cos : \iota$ 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 $np_4 : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((r1_tarski \\ & X0 X1) \Rightarrow (k5_relat_1 (k5_relat_1 X2 X1) X0 = k5_relat_1 X2 X0)) \end{aligned} \tag{2}$$

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.

$$\begin{aligned} & v6_valued_0 (k2_partfun1 k1_numbers k1_numbers (k2_partfun1 \\ & k1_numbers k1_numbers k30_sin_cos (k1_rcomp_1 (k10_real_1 k32_sin_cos \\ & np_4) (k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos))) (k1_rcomp_1 \\ & (k10_real_1 k32_sin_cos np_4) (k8_real_1 (k10_real_1 np_3 np_4) \\ & k32_sin_cos))) \end{aligned} \tag{4}$$

Assume the following.

$$(v1_funct_1\ k30_sin_cos) \wedge (m1_subset_1\ k30_sin_cos\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_funct_1\ X2) \wedge \\ & (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))) \Rightarrow ((v1_funct_1 \\ & (k2_partfun1\ X0\ X1\ X2\ X3)) \wedge (m1_subset_1\ (k2_partfun1\ X0\ X1\ X2\ X3) \\ & (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1_tarski\ X0\ X1) \wedge (r1_tarski\ X1\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_relat_1\ X2) \quad (8)$$

Theorem 1

$$\begin{aligned} & v2_funct_1\ (k2_partfun1\ k1_numbers\ k1_numbers\ k30_sin_cos\ (k1_rcomp_1 \\ & (k10_real_1\ k32_sin_cos\ np_4)\ (k8_real_1\ (k10_real_1\ np_3\ np_4) \\ & k32_sin_cos))) \end{aligned}$$