

l62_sincos10 (TMT-
bXNuXdTJR9PxiVu1kxPaj4QSxZNYB2EX)

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Let $k2_funct_1 : \iota \Rightarrow \iota$ be given. Let $k2_sincos10 : \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_fdiff_9 : \iota$ be given. Let $k4_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_partfun2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v2_funct_1 X0) \Rightarrow (k2_funct_1 (k2_funct_1 X0) = X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_funct_1 X2) \wedge ((v2_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (k2_partfun2 X0 X1 X2 = k2_funct_1 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow (k2_partfun1 X0 X1 X2 X3 = k5_relat_1 X2 X3) \quad (3)$$

Assume the following.

$$(v1_relat_1 (k5_relat_1 k1_fdiff_9 (k4_rcomp_1 (k10_real_1 k32_sin_cos np_2) k32_sin_cos))) \wedge (v2_funct_1 (k5_relat_1 k1_fdiff_9 (k4_rcomp_1 (k10_real_1 k32_sin_cos np_2) k32_sin_cos)))) \quad (4)$$

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.

$$\begin{aligned} & (v1_funct_1 k1_fdiff_9)\wedge(m1_subset_1 k1_fdiff_9 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k1_numbers k1_numbers))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & k2_sincos10 = k2_partfun2 k1_numbers k1_numbers (k2_partfun1 \\ & k1_numbers k1_numbers k1_fdiff_9 (k4_rcomp_1 (k10_real_1 k32_sin_cos \\ & np_2) k32_sin_cos)) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & k2_funct_1 k2_sincos10 = k2_partfun1 k1_numbers k1_numbers k1_fdiff_9 \\ & (k4_rcomp_1 (k10_real_1 k32_sin_cos np_2) k32_sin_cos) \end{aligned}$$