

t52_sin_cos3

(TMQCuBq5SXjzMe8XczqFcbUQBaBbXoFvmC9)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_numbers : \iota$ be given. Let $k15_sin_cos : \iota \Rightarrow \iota$ be given. Let $k5_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ be given. Let $k2_comseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_sin_cos3 : \iota$ be given. Let $k1_sin_cos3 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k2_numbers) \Rightarrow (k2_comseq_3 (k3_binop_2 (k10_funct_2 k2_numbers \\ k2_numbers k2_sin_cos3 X1) (k5_binop_2 k7_complex1 (k10_funct_2 \\ k2_numbers k2_numbers k1_sin_cos3 X1))) X0 = k3_binop_2 (k10_funct_2 \\ k2_numbers k2_numbers k2_sin_cos3 (k5_binop_2 X0 X1)) (k5_binop_2 \\ k7_complex1 (k10_funct_2 k2_numbers k2_numbers k1_sin_cos3 (\\ k5_binop_2 X0 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow (k15_sin_cos (k5_binop_2 k7_complex1 \\ X0) = k3_binop_2 (k10_funct_2 k2_numbers k2_numbers k2_sin_cos3 \\ X0) (k5_binop_2 k7_complex1 (k10_funct_2 k2_numbers k2_numbers \\ k1_sin_cos3 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1_xcmplx_0 X0) \wedge ((v1_xcmplx_0 \\ X1) \wedge (v1_xcmplx_0 X2))) \Rightarrow (k3_xcmplx_0 (k3_xcmplx_0 X0 X1) X2 = k3_xcmplx_0 \\ X0 (k3_xcmplx_0 X1 X2)) \end{aligned} \quad (3)$$

Assume the following.

$$k7_complex1 = k1_xcmplx_0 \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(\quad (6)$$

$$k5_binop_2 X0 X1 = k3_xcmplx_0 X0 X1)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(\quad (8)$$

$$v1_xcmplx_0 (k3_xcmplx_0 X0 X1))$$

Assume the following.

$$v1_xcmplx_0 k1_xcmplx_0 \quad (9)$$

Assume the following.

$$v1_membered k2_numbers \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(\quad (11)$$

$$k3_xcmplx_0 X0 X1 = k3_xcmplx_0 X1 X0)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(v1_xcmplx_0 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow \quad (13)$$

$$(v7_ordinal1 X1))$$

Assume the following.

$$\forall X0.(v1_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow \quad (14)$$

$$(v1_xcmplx_0 X1))$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k5_numbers)\Rightarrow(\forall X1.(m1_subset_1$$

$$X1 k2_numbers)\Rightarrow(k15_sin_cos (k5_binop_2 (k5_binop_2 k7_complex1$$

$$X0) X1) = k2_comseq_3 (k3_binop_2 (k10_funct_2 k2_numbers k2_numbers$$

$$k2_sin_cos3 X1) (k5_binop_2 k7_complex1 (k10_funct_2 k2_numbers$$

$$k2_numbers k1_sin_cos3 X1))) X0))$$