

l26_sin_cos3

(TMbEmyyPrxGrCuaU1ewUhiUxwsk9He3CsEg)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k15_sin_cos : \iota \Rightarrow \iota$ be given. Let $k3_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ be given. Let $k26_sin_cos : \iota \Rightarrow \iota$ be given. Let $k21_sin_cos : \iota \Rightarrow \iota$ be given. Let $k18_sin_cos : \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k9_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k15_sin_cos X0 = k26_sin_cos X0) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k15_sin_cos (k3_xcmplx_0 X0 k7_complex1) = k2_xcmplx_0 (k21_sin_cos X0) (k3_xcmplx_0 (k18_sin_cos X0) k7_complex1)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k15_sin_cos (k2_xcmplx_0 X0 X1) = k9_complex1 (k15_sin_cos X0) (k15_sin_cos X1))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k2_numbers) \wedge (m1_subset_1 X1 k2_numbers)) \Rightarrow (k9_complex1 X0 X1 = k3_xcmplx_0 X0 X1) \quad (4)$$

Assume the following.

$$k7_complex1 = k1_xcmplx_0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k5_binop_2 X0 X1 = k3_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k3_binop_2 X0 X1 = k2_xcmplx_0 X0 X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(v1_xcmplx_0 (k3_xcmplx_0 X0 X1)) \quad (8)$$

Assume the following.

$$v1_xcmplx_0 k1_xcmplx_0 \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(m1_subset_1 (k21_sin_cos X0) k1_numbers) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(m1_subset_1 (k18_sin_cos X0) k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(m1_subset_1 (k15_sin_cos X0) k2_numbers) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (14)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(\forall X1.(m1_subset_1 X1 k1_numbers)\Rightarrow(k15_sin_cos (k3_binop_2 X0 (k5_binop_2 X1 k7_complex1)) = k5_binop_2 (k26_sin_cos X0) (k3_binop_2 (k21_sin_cos X1) (k5_binop_2 (k18_sin_cos X1) k7_complex1))))$$