

t23_sin_cos (TMKzsChH-
WPp4chp5inSxzQDPCgwDUdWjgfP)

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Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k15_sin_cos : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_sin_cos : \iota \Rightarrow \iota$ be given. Let $k11_comseq_3 : \iota \Rightarrow \iota$ be given. Let $k3_sin_cos : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k13_sin_cos : \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k15_sin_cos X0 = k14_sin_cos X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k9_complex1 \\ (k11_comseq_3 (k3_sin_cos X0)) (k11_comseq_3 (k3_sin_cos X1)) = \\ k11_comseq_3 (k3_sin_cos (k2_xcmplx_0 X0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (v1_xcmplx_0 (k2_xcmplx_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k15_sin_cos X0) k2_numbers) \quad (4)$$

Assume the following.

$$\begin{aligned} (v1_funct_1 k13_sin_cos) \wedge ((v1_funct_2 k13_sin_cos k2_numbers \\ k2_numbers) \wedge (m1_subset_1 k13_sin_cos (k1_zfmisc_1 (k2_zfmisc_1 \\ k2_numbers k2_numbers)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k14_sin_cos X0 = k1_funct_1 k13_sin_cos X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k2_numbers k2_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k2_numbers k2_numbers)))))) \Rightarrow \\ & ((X0 = k13_sin_cos) \Leftrightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k1_funct_1 \\ & X0 X1 = k11_comseq_3 (k3_sin_cos X1)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 k2_numbers) \wedge (m1_subset_1 \\ & X1 k2_numbers)) \Rightarrow (k9_complex1 X0 X1 = k9_complex1 X1 X0) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (\\ & k2_xcmplx_0 X0 X1 = k2_xcmplx_0 X1 X0) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k15_sin_cos \\ & (k2_xcmplx_0 X0 X1) = k9_complex1 (k15_sin_cos X0) (k15_sin_cos \\ & X1))) \end{aligned}$$