

l46_sin_cos

(TMZSLefz2EUUTBmvTodKF6uKUeMtWTFzanb)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k11_comseq_3 : \iota \Rightarrow \iota$ be given. Let $k3_sin_cos : \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_complex1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_sin_cos : \iota$ be given. Let $k16_sin_cos : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k4_complex1 : \iota \Rightarrow \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k2_xcmplx_0 (k3_complex1 X0) (k3_xcmplx_0 (k4_complex1 X0) k7_complex1) = X0) \quad (1)$$

Assume the following.

$$k7_complex1 = k1_xcmplx_0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (v1_xcmplx_0 (k3_xcmplx_0 X0 X1)) \quad (3)$$

Assume the following.

$$v1_xcmplx_0 k1_xcmplx_0 \quad (4)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow ((v1_funct_1 (k3_sin_cos X0)) \wedge (v1_funct_2 (k3_sin_cos X0) k5_numbers k2_numbers) \wedge (m1_subset_1 (k3_sin_cos X0) (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))) \quad (5)$$

Assume the following.

$$(v1_funct_1 k19_sin_cos) \wedge ((v1_funct_2 k19_sin_cos k1_numbers k1_numbers) \wedge (m1_subset_1 k19_sin_cos (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \quad (6)$$

Assume the following.

$$(v1_funct_1\ k16_sin_cos) \wedge ((v1_funct_2\ k16_sin_cos\ k1_numbers\ k1_numbers) \wedge (m1_subset_1\ k16_sin_cos\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))) \quad (7)$$

Assume the following.

$$\forall X0. ((v1_funct_1\ X0) \wedge ((v1_funct_2\ X0\ k5_numbers\ k2_numbers) \wedge (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ k2_numbers)))))) \Rightarrow (m1_subset_1\ (k11_comseq_3\ X0)\ k2_numbers) \quad (8)$$

Assume the following.

$$\forall X0. ((v1_funct_1\ X0) \wedge ((v1_funct_2\ X0\ k1_numbers\ k1_numbers) \wedge (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))))) \Rightarrow ((X0 = k19_sin_cos) \Leftrightarrow (\forall X1. (m1_subset_1\ X1\ k1_numbers) \Rightarrow (k1_seq_1\ X0\ X1 = k3_complex1\ (k11_comseq_3\ (k3_sin_cos\ (k3_xcmplx_0\ X1\ k7_complex1)))))) \quad (9)$$

Assume the following.

$$\forall X0. ((v1_funct_1\ X0) \wedge ((v1_funct_2\ X0\ k1_numbers\ k1_numbers) \wedge (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))))) \Rightarrow ((X0 = k16_sin_cos) \Leftrightarrow (\forall X1. (m1_subset_1\ X1\ k1_numbers) \Rightarrow (k1_seq_1\ X0\ X1 = k4_complex1\ (k11_comseq_3\ (k3_sin_cos\ (k3_xcmplx_0\ X1\ k7_complex1)))))) \quad (10)$$

Assume the following.

$$\forall X0. (m1_subset_1\ X0\ k2_numbers) \Rightarrow (v1_xcmplx_0\ X0) \quad (11)$$

Assume the following.

$$\forall X0. (m1_subset_1\ X0\ k1_numbers) \Rightarrow (v1_xcmplx_0\ X0) \quad (12)$$

Theorem 1

$$\forall X0. (m1_subset_1\ X0\ k1_numbers) \Rightarrow (k11_comseq_3\ (k3_sin_cos\ (k3_xcmplx_0\ X0\ k7_complex1)) = k2_xcmplx_0\ (k1_seq_1\ k19_sin_cos\ X0)\ (k3_xcmplx_0\ (k1_seq_1\ k16_sin_cos\ X0)\ k7_complex1))$$