t12_sin_cos7 (TM-TAM61F1MYyty5SbZiyGeCqvgaDHxTxGKC)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_square\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ 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 $k3\_square\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_3 : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_2 : \iota$ be given. Let $np\_\_0 : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k3\_xcmplx\_0\ X0\ k6\_numbers = k6\_numbers) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k2\_xcmplx\_0\ X0\ k6\_numbers = X0) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\neg(k6\_numbers \neq X0) \wedge (r1\_xxreal\_0\ (k3\_square\_1\ X0)\ k6\_numbers)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k6\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)\ (k4\_xcmplx\_0\ X1) = k6\_xcmplx\_0\ X1\ X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)\ (k4\_xcmplx\_0\ X1) = k4\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0\ X0)\wedge((v1\_xcmplx\_0\ X1)\wedge(v1\_xcmplx\_0\ X2)))\Rightarrow(k2\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X2 = k2\_xcmplx\_0\ X0\ (k2\_xcmplx\_0\ X1\ X2)) \tag{6}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_3)\wedge(m2\_subset\_1\ np\_\_3\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_3\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_3\ k1\_numbers)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k3\_xcmplx\_0\ X0\ (k4\_xcmplx\_0\ np\_\_1) = k4\_xcmplx\_0\ X0) \tag{8}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{9}$$

Assume the following.

$$k4\_xcmplx\_0\ (k4\_xcmplx\_0\ np\_\_2) = np\_\_2 \tag{10}$$

Assume the following.

$$k6\_xcmplx\_0\ np\_\_1\ np\_\_1 = np\_\_0 \tag{11}$$

Assume the following.

$$k6\_xcmplx\_0\ np\_\_0\ np\_\_1 = k4\_xcmplx\_0\ np\_\_1 \tag{12}$$

Assume the following.

$$k2\_xcmplx\_0\ (k4\_xcmplx\_0\ np\_\_2)\ np\_\_3 = np\_\_1 \tag{13}$$

Assume the following.

$$k2\_xcmplx\_0\ (k4\_xcmplx\_0\ np\_\_1)\ (k4\_xcmplx\_0\ np\_\_1) = k4\_xcmplx\_0\ np\_\_2 \tag{14}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_3\ (k4\_xcmplx\_0\ np\_\_3) = np\_\_0 \tag{15}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_3\ (k4\_xcmplx\_0\ np\_\_2) = np\_\_1 \tag{16}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_2\ (k4\_xcmplx\_0\ np\_\_2) = np\_\_0 \tag{17}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_2\ np\_\_1 = np\_\_3 \tag{18}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_1\ np\_\_1 = np\_\_2 \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k5\_square\_1\ X0 = k3\_square\_1\ X0) \tag{20}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (k10\_binop\_2\ X0\ X1 = k6\_xcmplx\_0\ X0\ X1) \tag{21}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (v1\_xreal\_0\ (k6\_xcmplx\_0\ X0\ X1)) \tag{22}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (v1\_xreal\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{23}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \tag{24}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (m1\_subset\_1\ (k10\_binop\_2\ X0\ X1)\ k1\_numbers) \tag{25}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (k6\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X0\ (k4\_xcmplx\_0\ X1))) \tag{26}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k3\_xcmplx\_0\ X0\ X1 = k3\_xcmplx\_0\ X1\ X0) \tag{27}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{28}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xcmplx\_0\ X0) \tag{29}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{30}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\neg(X0 \neq np\_\_1) \wedge (r1\_xxreal\_0\ (k5\_square\_1\ (k10\_binop\_2\ np\_\_1\ X0))\ k6\_numbers))$$