t50_sin_cos (TMMsakutg8i4uBuSabZrNMhH4wUavv72Ywo)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k25\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24\_sin\_cos : \iota$ be given. Let $v3\_membered : \iota \Rightarrow o$ 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 $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (k8\_real\_1\ X0\ X1 = k3\_xcmplx\_0\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (k1\_seq\_1\ k24\_sin\_cos\ (k2\_xcmplx\_0\ X0\ X1) = k8\_real\_1\ (k1\_seq\_1\ k24\_sin\_cos\ X0)\ (k1\_seq\_1\ k24\_sin\_cos\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (v1\_xreal\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{3}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{4}$$

Assume the following.

$$(v1\_funct\_1\ k24\_sin\_cos) \wedge ((v1\_funct\_2\ k24\_sin\_cos\ k1\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ k24\_sin\_cos\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v3\_valued\_0\ X0))) \Rightarrow (m1\_subset\_1\ (k1\_seq\_1\ X0\ X1)\ k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(k25\_sin\_cos\ X0 = k1\_seq\_1\ k24\_sin\_cos\ X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v3\_valued\_0\ X2)) \quad (10)$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(k25\_sin\_cos\ (k2\_xcmplx\_0\ X0\ X1) = k3\_xcmplx\_0\ (k25\_sin\_cos\ X0)\ (k25\_sin\_cos\ X1)))$$