

t53\_sin\_cos3  
(TMGEavVLEHNujtbSfyRHH454JXoxFhot8L5)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k15\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k1\_binop\_2 : \iota \Rightarrow \iota$  be given. Let  $k5\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_complex1 : \iota$  be given. Let  $k2\_comseq\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_sin\_cos3 : \iota$  be given. Let  $k1\_sin\_cos3 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xcmplx\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k2\_numbers) \Rightarrow (k2\_comseq\_3 (k4\_binop\_2 (k10\_funct\_2 k2\_numbers \\ k2\_numbers k2\_sin\_cos3 X1) (k5\_binop\_2 k7\_complex1 (k10\_funct\_2 \\ k2\_numbers k2\_numbers k1\_sin\_cos3 X1))) X0 = k4\_binop\_2 (k10\_funct\_2 \\ k2\_numbers k2\_numbers k2\_sin\_cos3 (k5\_binop\_2 X0 X1)) (k5\_binop\_2 \\ k7\_complex1 (k10\_funct\_2 k2\_numbers k2\_numbers k1\_sin\_cos3 ( \\ k5\_binop\_2 X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k15\_sin\_cos (k1\_binop\_2 (k5\_binop\_2 \\ k7\_complex1 X0)) = k4\_binop\_2 (k10\_funct\_2 k2\_numbers k2\_numbers \\ k2\_sin\_cos3 X0) (k5\_binop\_2 k7\_complex1 (k10\_funct\_2 k2\_numbers \\ k2\_numbers k1\_sin\_cos3 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0 X0) \wedge ((v1\_xcmplx\_0 \\ X1) \wedge (v1\_xcmplx\_0 X2))) \Rightarrow (k3\_xcmplx\_0 (k3\_xcmplx\_0 X0 X1) X2 = k3\_xcmplx\_0 \\ X0 (k3\_xcmplx\_0 X1 X2)) \end{aligned} \tag{3}$$

Assume the following.

$$k7\_complex1 = k1\_xcmplx\_0 \tag{4}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow( \quad (6)$$

$$k5\_binop\_2 X0 X1 = k3\_xcmplx\_0 X0 X1)$$

Assume the following.

$$v6\_membered k4\_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow( \quad (8)$$

$$v1\_xcmplx\_0 (k3\_xcmplx\_0 X0 X1))$$

Assume the following.

$$v1\_xcmplx\_0 k1\_xcmplx\_0 \quad (9)$$

Assume the following.

$$v1\_membered k2\_numbers \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow( \quad (11)$$

$$k3\_xcmplx\_0 X0 X1 = k3\_xcmplx\_0 X1 X0)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(v1\_xcmplx\_0 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v6\_membered X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow \quad (13)$$

$$(v7\_ordinal1 X1))$$

Assume the following.

$$\forall X0.(v1\_membered X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow \quad (14)$$

$$(v1\_xcmplx\_0 X1))$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1$$

$$X1 k2\_numbers)\Rightarrow(k15\_sin\_cos (k1\_binop\_2 (k5\_binop\_2 (k5\_binop\_2$$

$$k7\_complex1 X0) X1)) = k2\_comseq\_3 (k4\_binop\_2 (k10\_funct\_2 k2\_numbers$$

$$k2\_numbers k2\_sin\_cos3 X1) (k5\_binop\_2 k7\_complex1 (k10\_funct\_2$$

$$k2\_numbers k2\_numbers k1\_sin\_cos3 X1))) X0))$$