t23_sin_cos3 (TMRsx8FQ7kQEjTPsYCbJ2bcnjXDPXKuAZLf)

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Let $k10\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_numbers : \iota$ be given. Let $k2\_sin\_cos3 : \iota$ be given. Let $k5\_complex1 : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k26\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k15\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_2 : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xcmplx\_0 : \iota$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_complex1 : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k6\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_binop\_2 : \iota \Rightarrow \iota$ 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 $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$k26\_sin\_cos\ k6\_numbers = np\_\_1 \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k15\_sin\_cos\ X0 = k26\_sin\_cos\ X0) \tag{3}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2) \wedge (m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_2\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{5}$$

Assume the following.

$$(m2\_subset\_1\ np\_\_0\ k1\_numbers\ k5\_numbers)\wedge((m1\_subset\_1\ np\_\_0\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_0\ k1\_numbers)) \tag{6}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{7}$$

Assume the following.

$$k4\_xcmplx\_0\ np\_\_0 = np\_\_0 \tag{8}$$

Assume the following.

$$k3\_xcmplx\_0\ np\_\_0\ k1\_xcmplx\_0 = np\_\_0 \tag{9}$$

Assume the following.

$$k7\_xcmplx\_0\ np\_\_2\ np\_\_2 = np\_\_1 \tag{10}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_1\ np\_\_1 = np\_\_2 \tag{11}$$

Assume the following.

$$k7\_complex1 = k1\_xcmplx\_0 \tag{12}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k6\_binop\_2\ X0\ X1 = k7\_xcmplx\_0\ X0\ X1) \tag{14}$$

Assume the following.

$$k5\_complex1 = k1\_xboole\_0 \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k5\_binop\_2\ X0\ X1 = k3\_xcmplx\_0\ X0\ X1) \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k3\_binop\_2\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k1\_binop\_2\ X0 = k4\_xcmplx\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge ((\neg v1\_xboole\_0\ X1)\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))))\Rightarrow(k10\_funct\_2 X0\ X1\ X2\ X3 = k7\_partfun1\ X1\ X2\ X3) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge ((\neg v1\_xboole\_0\ X1)\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge(m1\_subset\_1 X3\ X0))))\Rightarrow(k7\_partfun1\ X1\ X2\ X3 = k3\_funct\_2\ X0\ X1\ X2\ X3) \tag{20}$$

Assume the following.

$$\neg v1\_xboole\_0\ k2\_numbers \tag{21}$$

Assume the following.

$$v1\_xcmplx\_0\ k1\_xcmplx\_0 \tag{22}$$

Assume the following.

$$m1\_subset\_1\ k5\_complex1\ k2\_numbers \tag{23}$$

Assume the following.

$$(v1\_funct\_1\ k2\_sin\_cos3)\wedge((v1\_funct\_2\ k2\_sin\_cos3\ k2\_numbers\ k2\_numbers)\wedge(m1\_subset\_1\ k2\_sin\_cos3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k2\_numbers)))) \tag{24}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ k2\_numbers\ k2\_numbers)\wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k2\_numbers\ k2\_numbers)))))\Rightarrow ((X0 = k2\_sin\_cos3)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow (k3\_funct\_2\ k2\_numbers\ k2\_numbers\ X0\ X1 = k6\_binop\_2\ (k3\_binop\_2 (k15\_sin\_cos\ (k5\_binop\_2\ k7\_complex1\ X1))\ (k15\_sin\_cos\ (k1\_binop\_2 (k5\_binop\_2\ k7\_complex1\ X1))))\ np\_\_2))) \tag{25}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k5\_binop\_2\ X0\ X1 = k5\_binop\_2\ X1\ X0) \tag{26}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{27}$$

Theorem 1 $k10\_funct\_2\ k2\_numbers\ k2\_numbers\ k2\_sin\_cos3\ k5\_complex1 = np\_\_1$.