

# t64\_sincos10 (TM- SNw8rhshRnqTsHvviKa4ut2CNJxG3U2dW)

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Let  $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_fdiff\_9 : \iota$  be given. Let  $k4\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k4\_sincos10 : \iota$  be given. Let  $k1\_partfun2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k2\_funct\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_partfun2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow ((v2\_funct\_1 X0) \Rightarrow \\ & ((k3\_relat\_1 X0 (k2\_funct\_1 X0) = k4\_relat\_1 (k9\_xtuple\_0 X0)) \wedge \\ & (k3\_relat\_1 (k2\_funct\_1 X0) X0 = k4\_relat\_1 (k10\_xtuple\_0 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$k2\_relset\_1 k1\_numbers k4\_sincos10 = k4\_rcomp\_1 k6\_numbers (k10\_real\_1 k32\_sin\_cos np\_2) \quad (2)$$

Assume the following.

$$v2\_funct\_1 (k2\_partfun1 k1\_numbers k1\_numbers k2\_fdiff\_9 (k4\_rcomp\_1 k6\_numbers (k10\_real\_1 k32\_sin\_cos np\_2))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v5\_relat\_1 X1 X0)) \Rightarrow (k2\_relset\_1 X0 X1 = k10\_xtuple\_0 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_funct\_1 X2)\wedge((v2\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))\Rightarrow(k2\_partfun2 X0 X1 X2 = k2\_funct\_1 X2) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))\Rightarrow(k1\_partfun2 X0 X1 = k4\_relat\_1 X1) \quad (6)$$

Assume the following.

$$k2\_funct\_1 k4\_sincos10 = k2\_partfun1 k1\_numbers k1\_numbers k2\_fdiff\_9 (k4\_rcomp\_1 k6\_numbers (k10\_real\_1 k32\_sin\_cos np\_2)) \quad (7)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v2\_funct\_1 X0)))\Rightarrow((v1\_relat\_1 (k2\_funct\_1 X0))\wedge((v1\_funct\_1 (k2\_funct\_1 X0))\wedge(v2\_funct\_1 (k2\_funct\_1 X0)))) \quad (8)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (9)$$

Assume the following.

$$(v1\_funct\_1 k4\_sincos10)\wedge(m1\_subset\_1 k4\_sincos10 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1)\wedge(v5\_relat\_1 X1 X0))\Rightarrow(m1\_subset\_1 (k2\_relset\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))))\Rightarrow((v1\_funct\_1 (k2\_partfun1 X0 X1 X2 X3))\wedge(m1\_subset\_1 (k2\_partfun1 X0 X1 X2 X3) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))) \quad (12)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge(v1\_funct\_1 X0))\Rightarrow((v1\_relat\_1 (k2\_funct\_1 X0))\wedge(v1\_funct\_1 (k2\_funct\_1 X0))) \quad (13)$$

Assume the following.

$$(v1\_funct\_1 k2\_fdiff\_9)\wedge(m1\_subset\_1 k2\_fdiff\_9 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers))) \quad (14)$$

Assume the following.

$$k4\_sincos10 = k2\_partfun2\ k1\_numbers\ k1\_numbers\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ k2\_fdiff\_9\ (k4\_rcomp\_1\ k6\_numbers\ (k10\_real\_1\ k32\_sin\_cos\ np\_2))) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \Rightarrow ((v4\_relat\_1\ X2\ X0) \wedge (v5\_relat\_1\ X2\ X1)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \Rightarrow (v1\_relat\_1\ X2) \quad (17)$$

**Theorem 1**

$$k3\_relat\_1\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ k2\_fdiff\_9\ (k4\_rcomp\_1\ k6\_numbers\ (k10\_real\_1\ k32\_sin\_cos\ np\_2)))\ k4\_sincos10 = k1\_partfun2\ k1\_numbers\ (k4\_rcomp\_1\ k6\_numbers\ (k10\_real\_1\ k32\_sin\_cos\ np\_2))$$