

t81\_sincos10  
(TMX931GrdnsBTyDTwg4t785nuvGkDgycEer)

October 27, 2020

Let  $v5\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_sincos10 : \iota$  be given. Let  $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k7\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_fdiff\_9 : \iota$  be given. Let  $k3\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_funct\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k1\_xboole\_0 : \iota$  be given. Let  $k31\_sin\_cos : \iota$  be given. Assume the following.

$$v5\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers k1\_sincos10 (k7\_relset\_1 k1\_numbers k1\_numbers k1\_fdiff\_9 (k3\_rcomp\_1 k6\_numbers (k10\_real\_1 k32\_sin\_cos np\_2)))) \quad (1)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow ((v2\_funct\_1 X0) \Rightarrow ((k10\_xtuple\_0 X0 = k9\_xtuple\_0 (k2\_funct\_1 X0)) \wedge (k9\_xtuple\_0 X0 = k10\_xtuple\_0 (k2\_funct\_1 X0)))) \quad (2)$$

Assume the following.

$$k2\_relset\_1 k1\_numbers k1\_sincos10 = k3\_rcomp\_1 k6\_numbers (k10\_real\_1 k32\_sin\_cos np\_2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 X1) \Rightarrow (k10\_xtuple\_0 (k5\_relat\_1 X1 X0) = k7\_relat\_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(k7\_relset\_1 X0 X1 X2 X3 = k7\_relat\_1 X2 X3) \quad (5)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (6)$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))))\Rightarrow(k2\_partfun1 X0 X1 X2 X3 = k5\_relat\_1 X2 X3) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0)\Rightarrow(k5\_relat\_1 X0 (k9\_xtuple\_0 X0) = X0) \quad (9)$$

Assume the following.

$$k2\_funct\_1 k1\_sincos10 = k2\_partfun1 k1\_numbers k1\_numbers k1\_fdiff\_9 (k3\_rcomp\_1 k6\_numbers (k10\_real\_1 k32\_sin\_cos np\_2)) \quad (10)$$

Assume the following.

$$(v1\_funct\_1 k1\_sincos10)\wedge(v2\_funct\_1 k1\_sincos10) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1 X0)\wedge((v5\_valued\_0 X0)\wedge(m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))))\Rightarrow((v1\_funct\_1 (k5\_relat\_1 X0 X1))\wedge(v5\_valued\_0 (k5\_relat\_1 X0 X1))) \quad (12)$$

Assume the following.

$$(v1\_funct\_1 k1\_sincos10)\wedge(m1\_subset\_1 k1\_sincos10 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers))) \quad (13)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (15)$$

**Theorem 1**

*v5\_valued\_0 (k2\_partfun1 k1\_numbers k1\_numbers k1\_sincos10 (  
k1\_rcomp\_1 np\_1 (k7\_square\_1 np\_2)))*