# t10_sincos10 (TMXeGHmYQiSrL-HiK4Jj3EUDUJ4pz6a1BP1Y)

October 27, 2020

Let $v1\_fcont\_1 : \iota \Rightarrow o$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k1\_fdiff\_9 : \iota$ be given. Let $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $r2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_sin\_cos : \iota$ be given. Let $k5\_square\_1 : \iota \Rightarrow \iota$ be given. Let $k19\_sin\_cos : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(r2\_fdiff\_1\ k1\_fdiff\_9\ (k2\_rcomp\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ k32\_sin\_cos)) \wedge (\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow ((X0 \in k2\_rcomp\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ k32\_sin\_cos) \Rightarrow (k1\_fdiff\_1\ k1\_fdiff\_9\ X0 = k10\_real\_1\ (k1\_seq\_1\ k16\_sin\_cos\ X0)\ (k5\_square\_1\ (k1\_seq\_1\ k19\_sin\_cos\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))) \Rightarrow ((r2\_fdiff\_1\ X1\ X0) \Rightarrow (v1\_fcont\_1\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ X1\ X0))) \tag{2}$$

Assume the following.

$$(v1\_funct\_1\ k1\_fdiff\_9) \wedge (m1\_subset\_1\ k1\_fdiff\_9\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))) \tag{3}$$

**Theorem 1**

$$v1\_fcont\_1\ (k2\_partfun1\ k1\_numbers\ k1\_numbers\ k1\_fdiff\_9\ (k2\_rcomp\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ k32\_sin\_cos))$$