

# t11\_sincos10

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Let  $v1\_fcont\_1 : \iota \Rightarrow o$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_fdiff\_9 : \iota$  be given. Let  $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  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  $k6\_numbers : \iota$  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  $k19\_sin\_cos : \iota$  be given. Let  $k5\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k16\_sin\_cos : \iota$  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.

$$\begin{aligned} & (r2\_fdiff\_1 \ k2\_fdiff\_9 \ (k2\_rcomp\_1 \ (k1\_real\_1 \ (k10\_real\_1 \ k32\_sin\_cos \\ & \quad np\_2)) \ k6\_numbers)) \wedge (\forall X0. (m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow \\ & ((X0 \in k2\_rcomp\_1 \ (k1\_real\_1 \ (k10\_real\_1 \ k32\_sin\_cos \ np\_2)) \ k6\_numbers) \Rightarrow \\ & \quad (k1\_fdiff\_1 \ k2\_fdiff\_9 \ X0 = k1\_real\_1 \ (k10\_real\_1 \ (k1\_seq\_1 \ k19\_sin\_cos \\ & \quad \quad X0) \ (k5\_square\_1 \ (k1\_seq\_1 \ k16\_sin\_cos \ X0)))))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & (v1\_funct\_1 \ k2\_fdiff\_9) \wedge (m1\_subset\_1 \ k2\_fdiff\_9 \ (k1\_zfmisc\_1 \\ & \quad (k2\_zfmisc\_1 \ k1\_numbers \ k1\_numbers))) \end{aligned} \quad (3)$$

## Theorem 1

$$\begin{aligned} & v1\_fcont\_1 \ (k2\_partfun1 \ k1\_numbers \ k1\_numbers \ k2\_fdiff\_9 \ (k2\_rcomp\_1 \\ & \quad (k1\_real\_1 \ (k10\_real\_1 \ k32\_sin\_cos \ np\_2)) \ k6\_numbers)) \end{aligned}$$