t112_sincos10 (TMZ3hLLHjW29jLNSApCPmQQ7rgDwSXyqy5o)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k7\_square\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k12\_sincos10 : \iota \Rightarrow \iota$ be given. Let $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $np\_\_4 : \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_fdiff\_9 : \iota$ be given. Let $k6\_sin\_cos9 : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k2\_sin\_cos9 : \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k31\_sin\_cos : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (((r1\_xxreal\_0\ np\_\_1\ X0) \wedge (r1\_xxreal\_0\ X0\ (k7\_square\_1\ np\_\_2))) \Rightarrow (k1\_seq\_1\ k2\_fdiff\_9\ (k12\_sincos10\ X0) = X0)) \tag{1}$$

Assume the following.

$$(k6\_sin\_cos9\ k6\_numbers = k10\_real\_1\ k32\_sin\_cos\ np\_\_2) \wedge (k1\_seq\_1\ k2\_sin\_cos9\ k6\_numbers = k10\_real\_1\ k32\_sin\_cos\ np\_\_2) \tag{2}$$

Assume the following.

$$(k1\_seq\_1\ k2\_fdiff\_9\ (k1\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)) = k1\_real\_1\ np\_\_1) \wedge ((k1\_seq\_1\ k2\_fdiff\_9\ (k1\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_4)) = k1\_real\_1\ (k7\_square\_1\ np\_\_2)) \wedge ((k1\_seq\_1\ k2\_fdiff\_9\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_4) = k7\_square\_1\ np\_\_2) \wedge (k1\_seq\_1\ k2\_fdiff\_9\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2) = np\_\_1))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X0)) \Rightarrow (X0 = X1))) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(((r1\_xxreal\_0\ np\_\_1\ X0)\wedge(r1\_xxreal\_0\ X0\ (k7\_square\_1\ np\_\_2)))\Rightarrow((r1\_xxreal\_0\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_4)\ (k12\_sincos10\ X0))\wedge(r1\_xxreal\_0\ (k12\_sincos10\ X0)\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2))))) \tag{5}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_4)\wedge(m2\_subset\_1\ np\_\_4\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_4\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_4\ k1\_numbers)) \tag{6}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2)\wedge(m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_2\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{7}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{8}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{9}$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(m1\_subset\_1\ (k7\_square\_1\ X0)\ k1\_numbers) \tag{11}$$

Assume the following.

$$m1\_subset\_1\ k32\_sin\_cos\ k1\_numbers \tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(m1\_subset\_1\ (k12\_sincos10\ X0)\ k1\_numbers) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers)\wedge(v1\_xreal\_0\ X1))\Rightarrow(m1\_subset\_1\ (k10\_real\_1\ X0\ X1)\ k1\_numbers) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow((r1\_xxreal\_0\ X0\ X1)\vee(r1\_xxreal\_0\ X1\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \tag{16}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{17}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X0\ np\_\_1) \wedge ((\neg r1\_xxreal\_0\ (k7\_square\_1\ np\_\_2)\ X0) \wedge (\neg(\neg r1\_xxreal\_0\ (k12\_sincos10\ X0)\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_4)) \wedge (\neg r1\_xxreal\_0\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ (k12\_sincos10\ X0)))))$$