

## l16\_sin\_cos6

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Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
 & (\neg r1\_xxreal\_0 (k10\_real\_1 k32\_sin\_cos np\_2) k6\_numbers) \wedge (( \\
 & \quad \neg r1\_xxreal\_0 k32\_sin\_cos (k10\_real\_1 k32\_sin\_cos np\_2)) \wedge (( \\
 & \neg r1\_xxreal\_0 k32\_sin\_cos k6\_numbers) \wedge ((\neg r1\_xxreal\_0 (k10\_real\_1 \\
 & \quad k32\_sin\_cos np\_2) (k1\_real\_1 (k10\_real\_1 k32\_sin\_cos np\_2))) \wedge \\
 & \quad ((\neg r1\_xxreal\_0 (k8\_real\_1 np\_2 k32\_sin\_cos) k32\_sin\_cos) \wedge ( \\
 & \quad (\neg r1\_xxreal\_0 (k8\_real\_1 (k10\_real\_1 np\_3 np\_2) k32\_sin\_cos) \\
 & \quad (k10\_real\_1 k32\_sin\_cos np\_2)) \wedge ((\neg r1\_xxreal\_0 k6\_numbers ( \\
 & \quad k1\_real\_1 (k10\_real\_1 k32\_sin\_cos np\_2))) \wedge ((\neg r1\_xxreal\_0 ( \\
 & k8\_real\_1 np\_2 k32\_sin\_cos) k6\_numbers) \wedge ((\neg r1\_xxreal\_0 (k8\_real\_1 \\
 & \quad (k10\_real\_1 np\_3 np\_2) k32\_sin\_cos) k32\_sin\_cos) \wedge ((\neg r1\_xxreal\_0 \\
 & \quad (k8\_real\_1 np\_2 k32\_sin\_cos) (k8\_real\_1 (k10\_real\_1 np\_3 np\_2) \\
 & \quad k32\_sin\_cos)) \wedge (\neg r1\_xxreal\_0 (k8\_real\_1 (k10\_real\_1 np\_3 np\_2) \\
 & \quad k32\_sin\_cos) k6\_numbers))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (v1\_xcmplx\_0 X0) \Rightarrow (k3\_xcmplx\_0 np\_1 X0 = X0) \tag{2}$$

Assume the following.

$$\begin{aligned}
 & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\
 & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers))
 \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k8\_real\_1 X0 X1 = k3\_xcmplx\_0 X0 X1) \tag{4}$$

Assume the following.

$$m1\_subset\_1 \ k32\_sin\_cos \ k1\_numbers \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (v1\_xreal\_0 \ X0) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (v1\_xcmplx\_0 \ X0) \tag{7}$$

**Theorem 1**

$$\neg r1\_xreal\_0 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ (k8\_real\_1 \ np\_1 \ k32\_sin\_cos)$$