

l66\_sin\_cos6 (TM-  
MyTF6db3sXHGagyqo9LS6gAQDMiQS553q)

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Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k8\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k5\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  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  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k31\_sin\_cos : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg(X0 \in X1) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X2)) \wedge (v1\_xboole\_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k8\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (6)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xreal\_0 X2) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow ((X1 \in k1\_rcomp\_1 \\ & (k3\_real\_1 X2 (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X0)) (k3\_real\_1 \\ & X3 (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X0))) \Rightarrow (k5\_real\_1 \\ & X1 (k8\_real\_1 np\_2 k32\_sin\_cos) \in k1\_rcomp\_1 (k3\_real\_1 X2 (k8\_real\_1 \\ & (k8\_real\_1 np\_2 k32\_sin\_cos) (k5\_real\_1 X0 np\_1))) (k3\_real\_1 \\ & X3 (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) (k5\_real\_1 X0 np\_1))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (m1\_subset\_1 (k8\_subset\_1 X0 X1 X2) (k1\_zfmisc\_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_xreal\_0 X1)) \Rightarrow (m1\_subset\_1 (k8\_real\_1 X0 X1) k1\_numbers) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (m1\_subset\_1 X1 k1\_numbers)) \Rightarrow (m1\_subset\_1 (k5\_real\_1 X0 X1) k1\_numbers) \quad (11)$$

Assume the following.

$$v1\_xreal\_0 k31\_sin\_cos \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k8\_subset\_1 X0 X1 X2 = k8\_subset\_1 X0 X2 X1) \quad (14)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xreal\_0 X2) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow ((X1 \in k8\_subset\_1 \\ & k1\_numbers (k1\_rcomp\_1 (k3\_real\_1 X2 (k8\_real\_1 (k8\_real\_1 np\_2 \\ & k32\_sin\_cos) X0)) (k3\_real\_1 X3 (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) \\ & X0))) k1\_numbers) \Rightarrow (k5\_real\_1 X1 (k8\_real\_1 np\_2 k32\_sin\_cos) \in \\ & k8\_subset\_1 k1\_numbers (k1\_rcomp\_1 (k3\_real\_1 X2 (k8\_real\_1 ( \\ & k8\_real\_1 np\_2 k32\_sin\_cos) (k5\_real\_1 X0 np\_1))) (k3\_real\_1 \\ & X3 (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) (k5\_real\_1 X0 np\_1)))))) \\ & k1\_numbers)))))) \end{aligned}$$