

t34\_sin\_cos2 (TMFgnHptLZHUgmptd-  
CwWhxbtcfJnBaYBD2z)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r2\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_sin\_cos2 : \iota$  be given. Let  $k1\_numbers : \iota$  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  $k4\_sin\_cos2 : \iota$  be given. Let  $v3\_rcomp\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_fdiff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_sin\_cos2 : \iota$  be given. Let  $k2\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v3\_rcomp\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers))) \Rightarrow \\ (\forall X1.((v1\_funct\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ k1\_numbers k1\_numbers)))) \Rightarrow ((r2\_fdiff\_1 X1 X0) \Leftrightarrow ((r1\_tarski X0 \\ (k1\_relset\_1 k1\_numbers X1)) \wedge (\forall X2.(m1\_subset\_1 X2 k1\_numbers) \Rightarrow \\ ((X2 \in X0) \Rightarrow (r1\_fdiff\_1 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((r1\_fdiff\_1 k1\_sin\_cos2 X0) \wedge (k1\_fdiff\_1 \\ k1\_sin\_cos2 X0 = k1\_seq\_1 k4\_sin\_cos2 X0)) \quad (2)$$

Assume the following.

$$(k1\_relset\_1 k1\_numbers k1\_sin\_cos2 = k1\_numbers) \wedge ((k1\_relset\_1 \\ k1\_numbers k4\_sin\_cos2 = k1\_numbers) \wedge (k1\_relset\_1 k1\_numbers \\ k7\_sin\_cos2 = k1\_numbers)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \quad (4)$$

Assume the following.

$$v3\_rcomp\_1 (k2\_subset\_1 k1\_numbers) \quad (5)$$

Assume the following.

$$\forall X0.m1\_subset\_1 (k2\_subset\_1 X0) (k1\_zfmisc\_1 X0) \quad (6)$$

Assume the following.

$$(v1\_funct\_1 k1\_sin\_cos2) \wedge ((v1\_funct\_2 k1\_sin\_cos2 k1\_numbers \\ k1\_numbers) \wedge (m1\_subset\_1 k1\_sin\_cos2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ k1\_numbers k1\_numbers)))) \quad (7)$$

Assume the following.

$$\forall X0.k2\_subset\_1 X0 = X0 \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (9)$$

**Theorem 1**

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((r2\_fdiff\_1 k1\_sin\_cos2 k1\_numbers) \wedge \\ (k1\_fdiff\_1 k1\_sin\_cos2 X0 = k1\_seq\_1 k4\_sin\_cos2 X0))$$