

t2\_sin\_cos4  
(TMFh1gcgRZwxPHGgcb1f1WDAk2R49ikWA6Q)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k3\_sin\_cos4 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k17\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k21\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k18\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k20\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  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  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow & ((k21\_sin\_cos k6\_numbers = np\_1) \wedge \\ & ((k18\_sin\_cos k6\_numbers = k6\_numbers) \wedge ((k20\_sin\_cos (k4\_xcmplx\_0 \\ X0) = k20\_sin\_cos X0) \wedge (k17\_sin\_cos (k4\_xcmplx\_0 X0) = k4\_xcmplx\_0 \\ & (k17\_sin\_cos X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k7\_xcmplx\_0 X0 (k4\_xcmplx\_0 X1) = k4\_xcmplx\_0 (k7\_xcmplx\_0 X0 X1))) \tag{2}$$

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.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((v1\_xcmplx\_0 (k4\_xcmplx\_0 X0)) \wedge (v1\_xreal\_0 (k4\_xcmplx\_0 X0))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xreal\_0 (k17\_sin\_cos X0)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (k3\_sin\_cos4 X0 = k7\_xcmplx\_0 np\_1 (k17\_sin\_cos X0)) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xcmplx\_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xcmplx\_0 X0) \quad (8)$$

**Theorem 1**

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (k3\_sin\_cos4 (k4\_xcmplx\_0 X0) = k4\_xcmplx\_0 (k7\_xcmplx\_0 np\_1 (k17\_sin\_cos X0)))$$