

# t21\_sin\_cos4 (TMSqN- mEiBBm59xaRhbRycGP9H1nofxVgh9T)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k20\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k17\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_sin\_cos4 : \iota \Rightarrow \iota$  be given. Let  $k2\_sin\_cos4 : \iota \Rightarrow \iota$  be given. Let  $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (k20\_sin\_cos \\ (k6\_xcmplx\_0 X0 X1) = k2\_xcmplx\_0 (k3\_xcmplx\_0 (k20\_sin\_cos X0) \\ (k20\_sin\_cos X1)) (k3\_xcmplx\_0 (k17\_sin\_cos X0) (k17\_sin\_cos \\ X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2. \\ (v1\_xcmplx\_0 X2) \Rightarrow (\forall X3.(v1\_xcmplx\_0 X3) \Rightarrow (\neg(X0 \neq k6\_numbers) \wedge \\ ((X1 \neq k6\_numbers) \wedge (k2\_xcmplx\_0 (k7\_xcmplx\_0 X2 X0) (k7\_xcmplx\_0 \\ X3 X1) \neq k7\_xcmplx\_0 (k2\_xcmplx\_0 (k3\_xcmplx\_0 X2 X1) (k3\_xcmplx\_0 \\ X3 X0)) (k3\_xcmplx\_0 X0 X1))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xreal\_0 (k20\_sin\_cos X0)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (v1\_xcmplx\_0 (k3\_xcmplx\_0 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xreal\_0 (k17\_sin\_cos X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (k2\_sin\_cos4 X0 = k7\_xcmplx\_0 (k20\_sin\_cos X0) (k17\_sin\_cos X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (k1\_sin\_cos4 X0 = k7\_xcmplx\_0 (k17\_sin\_cos X0) (k20\_sin\_cos X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k3\_xcmplx\_0 X0 X1 = k3\_xcmplx\_0 X1 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow (k2\_xcmplx\_0 X0 X1 = k2\_xcmplx\_0 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xcmplx\_0 X0) \quad (10)$$

**Theorem 1**

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(k20\_sin\_cos X0 \neq k6\_numbers) \wedge ((k17\_sin\_cos X1 \neq k6\_numbers) \wedge (k2\_xcmplx\_0 (k1\_sin\_cos4 X0) (k2\_sin\_cos4 X1) \neq k7\_xcmplx\_0 (k20\_sin\_cos (k6\_xcmplx\_0 X0 X1)) (k3\_xcmplx\_0 (k20\_sin\_cos X0) (k17\_sin\_cos X1)))))))$$