

t19_sin_cos4
(TMZP194eZ5givgvu8hUJrabHpxYsTAV6D3d)

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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 $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_sin_cos : \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((k17_sin_cos \\ (k2_xcmplx_0 X0 X1) = k2_xcmplx_0 (k3_xcmplx_0 (k17_sin_cos X0) \\ (k20_sin_cos X1)) (k3_xcmplx_0 (k20_sin_cos X0) (k17_sin_cos \\ X1))) \wedge (k20_sin_cos (k2_xcmplx_0 X0 X1) = k6_xcmplx_0 (k3_xcmplx_0 \\ (k20_sin_cos X0) (k20_sin_cos X1)) (k3_xcmplx_0 (k17_sin_cos \\ X0) (k17_sin_cos X1)))))) \end{aligned} \quad (1)$$

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.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xreal_0 (k17_sin_cos X0)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k1_sin_cos4 X0 = k7_xcmplx_0 (k17_sin_cos X0) (k20_sin_cos X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k3_xcmplx_0 X0 X1 = k3_xcmplx_0 X1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xcmplx_0 X0) \quad (7)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\neg(k20_sin_cos X0\neq k6_numbers)\wedge((k20_sin_cos X1\neq k6_numbers)\wedge(k2_xcmplx_0 (k1_sin_cos4 X0) (k1_sin_cos4 X1)\neq k7_xcmplx_0 (k17_sin_cos (k2_xcmplx_0 X0 X1)) (k3_xcmplx_0 (k20_sin_cos X0) (k20_sin_cos X1))))))$$