

t1_sin_cos5 (TMT-
DRsrw6X7aG3KX8SEBbkz2SdCv4dZ61qQ)

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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 $k3_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $k1_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ 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. Let $k1_xboole_0 : \iota$ be given. Let $k17_sin_cos : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (k7_xcmplx_0 X1 X2 = k7_xcmplx_0 \\ & (k3_xcmplx_0 X1 X0) (k3_xcmplx_0 X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow ((\\ & X0 \neq k6_numbers) \Rightarrow (k3_xcmplx_0 (k7_xcmplx_0 X1 X0) X0 = X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 \\ & X1)) \Rightarrow (k10_real_1 X0 X1 = k7_xcmplx_0 X0 X1) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xreal_0 (k20_sin_cos X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xreal_0 (k17_sin_cos X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (m1_subset_1 (k4_sin_cos4 X0) k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (m1_subset_1 (k1_sin_cos4 X0) k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k4_sin_cos4 X0 = k7_xcmplx_0 np_1 (k20_sin_cos X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k3_sin_cos4 X0 = k7_xcmplx_0 np_1 (k17_sin_cos X0)) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k1_sin_cos4 X0 = k7_xcmplx_0 (k17_sin_cos X0) (k20_sin_cos X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (14)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((k20_sin_cos X0 \neq k6_numbers) \Rightarrow (k3_sin_cos4 X0 = k10_real_1 (k4_sin_cos4 X0) (k1_sin_cos4 X0)))$$