

t66_sin_cos9

(TMdPa1irnjp3AHsNfDAMQnxW6UHk1MjXeJh)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_sin_cos9 : \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $np_4 : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k2_sin_cos4 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_sin_cos9 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k30_sin_cos : \iota$ 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 $k5_numbers : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (((r1_xxreal_0 (k1_real_1 np_1) X0) \wedge (r1_xxreal_0 X0 np_1)) \Rightarrow ((r1_xxreal_0 (k10_real_1 k32_sin_cos np_4) (k6_sin_cos9 X0)) \wedge (r1_xxreal_0 (k6_sin_cos9 X0) (k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos)))))) \quad (1)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (((r1_xxreal_0 (k1_real_1 np_1) X0) \wedge (r1_xxreal_0 X0 np_1)) \Rightarrow (k2_sin_cos4 (k6_sin_cos9 X0) = X0)) \quad (2)$$

Assume the following.

$$(k6_sin_cos9 (k1_real_1 np_1) = k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos) \wedge (k1_seq_1 k2_sin_cos9 (k1_real_1 np_1) = k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & (k1_seq_1 \ k30_sin_cos \ (k10_real_1 \ k32_sin_cos \ np_4) = np_1) \wedge \\ & ((k2_sin_cos4 \ (k10_real_1 \ k32_sin_cos \ np_4) = np_1) \wedge ((k1_seq_1 \\ & \quad k30_sin_cos \ (k8_real_1 \ (k10_real_1 \ np_3 \ np_4) \ k32_sin_cos) = \\ & \quad k1_real_1 \ np_1) \wedge (k2_sin_cos4 \ (k8_real_1 \ (k10_real_1 \ np_3 \ np_4) \\ & \quad \quad k32_sin_cos) = k1_real_1 \ np_1))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_4) \wedge (m2_subset_1 \ np_4 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_4 \ k5_numbers) \wedge (m1_subset_1 \ np_4 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$r1_xxreal_0 \ np_1 \ np_1 \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (r1_xxreal_0 \ X0 \ X0) \quad (9)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (k1_real_1 \ X0 = k4_xcmplx_0 \ X0) \quad (10)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (v1_xreal_0 \ (k4_xcmplx_0 \ X0))) \quad (11)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (m1_subset_1 \ (k6_sin_cos9 \ X0) \ k1_numbers) \quad (12)$$

Assume the following.

$$m1_subset_1 \ k32_sin_cos \ k1_numbers \quad (13)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (m1_subset_1 \ (k1_real_1 \ X0) \ k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (m1_subset_1 \ (k10_real_1 \ X0 \ X1) \ k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow((r1_xxreal_0 X0 X1)\vee(r1_xxreal_0 X1 X0)) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (18)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(\neg(\neg r1_xxreal_0 X0 (k1_real_1 np_1))\wedge(\neg r1_xxreal_0 np_1 X0)\wedge(\neg(\neg r1_xxreal_0 (k6_sin_cos9 X0) (k10_real_1 k32_sin_cos np_4))\wedge(\neg r1_xxreal_0 (k8_real_1 (k10_real_1 np_3 np_4) k32_sin_cos) (k6_sin_cos9 X0))))))$$