

t33_sin_cos2 (TMUkHvVYR-
cGTct4nxSA2h1MGyX5YYUborFr)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_sin_cos2 : \iota$ be given. Let $k1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_sin_cos2 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_rfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sin_cos2 : \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))) \Rightarrow ((r2_relset_1 X0 X1 X2 X3) \Leftrightarrow (X2 = X3)) \quad (1)$$

Assume the following.

$$r2_relset_1 k1_numbers k1_numbers k7_sin_cos2 (k3_rfunct_1 k1_numbers k1_numbers k1_sin_cos2 k4_sin_cos2) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((r1_fdiff_1 (k3_rfunct_1 k1_numbers k1_numbers k1_sin_cos2 k4_sin_cos2) X0) \wedge (k1_fdiff_1 (k3_rfunct_1 k1_numbers k1_numbers k1_sin_cos2 k4_sin_cos2) X0 = k10_real_1 np_1 (k5_square_1 (k1_seq_1 k4_sin_cos2 X0)))) \quad (3)$$

Assume the following.

$$v3_membered k1_numbers \quad (4)$$

Assume the following.

$$(v1_funct_1 k7_sin_cos2) \wedge ((v1_funct_2 k7_sin_cos2 k1_numbers k1_numbers) \wedge (m1_subset_1 k7_sin_cos2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \quad (5)$$

Assume the following.

$$(v1_funct_1\ k4_sin_cos2) \wedge ((v1_funct_2\ k4_sin_cos2\ k1_numbers\ k1_numbers) \wedge (m1_subset_1\ k4_sin_cos2\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v3_membered\ X1) \wedge (((v1_funct_1\ X2) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))) \wedge ((v1_funct_1\ X3) \wedge (m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))))) \Rightarrow ((v1_funct_1\ (k3_rfunct_1\ X0\ X1\ X2\ X3)) \wedge (m1_subset_1\ (k3_rfunct_1\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k1_numbers)))) \quad (7)$$

Assume the following.

$$(v1_funct_1\ k1_sin_cos2) \wedge ((v1_funct_2\ k1_sin_cos2\ k1_numbers\ k1_numbers) \wedge (m1_subset_1\ k1_sin_cos2\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers)))) \quad (8)$$

Theorem 1

$$\forall X0.(v1_xreal_0\ X0) \Rightarrow ((r1_fdiff_1\ k7_sin_cos2\ X0) \wedge (k1_fdiff_1\ k7_sin_cos2\ X0 = k10_real_1\ np_1\ (k5_square_1\ (k1_seq_1\ k4_sin_cos2\ X0))))$$