

160_sin_cos2 (TMMUzYy- CFs8Weoe8TCYhXJyGMbzQtde3UhE)

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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 $k3_rfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_sin_cos2 : \iota$ be given. Let $k4_sin_cos2 : \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((r1_fdiff_1 k4_sin_cos2 X0) \wedge (k1_fdiff_1 k4_sin_cos2 X0 = k1_seq_1 k1_sin_cos2 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((r1_fdiff_1 k1_sin_cos2 X0) \wedge (k1_fdiff_1 k1_sin_cos2 X0 = k1_seq_1 k4_sin_cos2 X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((k1_seq_1 k4_sin_cos2 X0 \neq k6_numbers) \wedge ((\neg r1_xxreal_0 (k1_seq_1 k4_sin_cos2 X0) k6_numbers) \wedge (k1_seq_1 k4_sin_cos2 k6_numbers = np_1))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((k9_real_1 (k5_square_1 (k1_seq_1 k4_sin_cos2 X0)) (k5_square_1 (k1_seq_1 k1_sin_cos2 X0)) = np_1) \wedge (k9_real_1 (k8_real_1 (k1_seq_1 k4_sin_cos2 X0) (k1_seq_1 k4_sin_cos2 X0)) (k8_real_1 (k1_seq_1 k1_sin_cos2 X0) (k1_seq_1 k1_sin_cos2 X0)) = np_1)) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v1_funct_1 \\
& X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow \\
& (\forall X2.((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers k1_numbers)))) \Rightarrow (((r1_fdiff_1 X2 X0) \wedge (r1_fdiff_1 \\
& X1 X0)) \Rightarrow ((k1_seq_1 X1 X0 = k6_numbers) \vee ((r1_fdiff_1 (k3_rfunct_1 \\
& k1_numbers k1_numbers X2 X1) X0) \wedge (k1_fdiff_1 (k3_rfunct_1 k1_numbers \\
& k1_numbers X2 X1) X0 = k10_real_1 (k9_real_1 (k8_real_1 (k1_fdiff_1 \\
& X2 X0) (k1_seq_1 X1 X0)) (k8_real_1 (k1_fdiff_1 X1 X0) (k1_seq_1 \\
& X2 X0))) (k5_square_1 (k1_seq_1 X1 X0)))))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& (v1_funct_1 k4_sin_cos2) \wedge ((v1_funct_2 k4_sin_cos2 k1_numbers \\
& k1_numbers) \wedge (m1_subset_1 k4_sin_cos2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers k1_numbers))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& (v1_funct_1 k1_sin_cos2) \wedge ((v1_funct_2 k1_sin_cos2 k1_numbers \\
& k1_numbers) \wedge (m1_subset_1 k1_sin_cos2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k1_numbers k1_numbers))))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \tag{9}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow ((r1_fdiff_1 (k3_rfunct_1 k1_numbers \\
& k1_numbers k1_sin_cos2 k4_sin_cos2) X0) \wedge (k1_fdiff_1 (k3_rfunct_1 \\
& k1_numbers k1_numbers k1_sin_cos2 k4_sin_cos2) X0 = k10_real_1 \\
& np_1 (k5_square_1 (k1_seq_1 k4_sin_cos2 X0))))
\end{aligned}$$