

l113_toprealb

(TMd34CmeHXyfedbXDCiYaqoFu9bw8zozE2M)

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Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_topalg_2 : \iota$ be given. Let $k5_toprealb : \iota \Rightarrow \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k32_sin_cos : \iota$ be given. Let $c37_toprealb : \iota$ be given. Let $c26_toprealb : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k31_sin_cos : \iota$ be given. Let $k3_topmetr : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 (k1_pre_topc X0 X2)))) \Rightarrow \\ & ((X1 = X3) \Rightarrow (k1_pre_topc X0 X1 = k1_pre_topc (k1_pre_topc X0 X2) X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$k32_sin_cos = k31_sin_cos \quad (4)$$

Assume the following.

$$k2_topalg_2 = k3_topmetr \quad (5)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (m1_subset_1 (k5_toprealb X0) (k1_zfmisc_1 (u1_struct_0 k2_topalg_2))) \quad (7)$$

Assume the following.

$$(v2_pre_topc k3_topmetr) \wedge (l1_pre_topc k3_topmetr) \quad (8)$$

Assume the following.

$$v1_xreal_0 k31_sin_cos \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k1_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (10)$$

Assume the following.

$$m1_subset_1 c37_toprealb (k1_zfmisc_1 (u1_struct_0 (k1_pre_topc k2_topalg_2 (k5_toprealb (k1_rcomp_1 k6_numbers k32_sin_cos)))))) \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 c26_toprealb) \wedge (m1_subset_1 c26_toprealb (k1_zfmisc_1 k1_numbers)) \quad (12)$$

Assume the following.

$$c37_toprealb = k5_toprealb c26_toprealb \quad (13)$$

Theorem 1

$$k1_pre_topc (k1_pre_topc k2_topalg_2 (k5_toprealb (k1_rcomp_1 k6_numbers k32_sin_cos))) c37_toprealb = k1_pre_topc k2_topalg_2 (k5_toprealb c26_toprealb)$$