

l112_toprealb

(TMZUcZVoFeDue1JZz52vG18jGCJLaAP1qTZ)

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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 $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $c36_toprealb : \iota$ be given. Let $c25_toprealb : \iota$ 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 $v2_xxreal_0 : \iota \Rightarrow o$ 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 $k3_topmetr : \iota$ 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. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 (k1_pre_topc X0 X2)))) \Rightarrow \\
& ((X1 = X3) \Rightarrow (k1_pre_topc X0 X1 = k1_pre_topc (k1_pre_topc X0 X2) X3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers))
\end{aligned} \tag{2}$$

Assume the following.

$$k2_topalg_2 = k3_topmetr \tag{3}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k1_real_1 X0 = k4_xcmplx_0 X0) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge \\
& (v1_xreal_0 (k4_xcmplx_0 X0)))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (m1_subset_1 (k5_toprealb X0) (k1_zfmisc_1 (u1_struct_0 k2_topalg_2))) \quad (6)$$

Assume the following.

$$(v2_pre_topc k3_topmetr) \wedge (l1_pre_topc k3_topmetr) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k1_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (8)$$

Assume the following.

$$m1_subset_1 c36_toprealb (k1_zfmisc_1 (u1_struct_0 (k1_pre_topc k2_topalg_2 (k5_toprealb (k1_rcomp_1 (k1_real_1 np_1) np_1)))))) \quad (9)$$

Assume the following.

$$(\neg v1_xboole_0 c25_toprealb) \wedge (m1_subset_1 c25_toprealb (k1_zfmisc_1 k1_numbers)) \quad (10)$$

Assume the following.

$$c36_toprealb = k5_toprealb c25_toprealb \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (12)$$

Theorem 1

$$k1_pre_topc (k1_pre_topc k2_topalg_2 (k5_toprealb (k1_rcomp_1 (k1_real_1 np_1) np_1))) c36_toprealb = k1_pre_topc k2_topalg_2 (k5_toprealb c25_toprealb)$$