

t33_clopban4

(TMcz6fkz9528FnqwFnmo1ph1gU4ZDStd4gc)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_clvect_1 : \iota \Rightarrow o$ be given. Let $v3_clvect_1 : \iota \Rightarrow o$ be given. Let $v4_clvect_1 : \iota \Rightarrow o$ be given. Let $v5_clvect_1 : \iota \Rightarrow o$ be given. Let $v8_clvect_1 : \iota \Rightarrow o$ be given. Let $v2_cfunclom : \iota \Rightarrow o$ be given. Let $v5_clopban2 : \iota \Rightarrow o$ be given. Let $l1_clopban2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_clopban4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_clopban3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_clopban4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funcl_1 : \iota \Rightarrow o$ be given. Let $k6_clopban4 : \iota \Rightarrow \iota$ be given. Let $v1_funcl_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funcl_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
 & ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\
 & X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\
 & ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopban2 \\
 & X0) \wedge (l1_clopban2 X0)))))))))) \Rightarrow ((v1_funcl_1 (k6_clopban4 \\
 & X0)) \wedge ((v1_funcl_2 (k6_clopban4 X0) (u1_struct_0 X0) (u1_struct_0 \\
 & X0)) \wedge (m1_subset_1 (k6_clopban4 X0) (k1_zfmisc_1 (k2_zfmisc_1 \\
 & (u1_struct_0 X0) (u1_struct_0 X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
& ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\
& X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\
& ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopan2 \\
& X0) \wedge (l1_clopan2 X0)))))))))))))) \Rightarrow (\forall X1. (m1_subset_1 \\
& X1 (u1_struct_0 X0) \Rightarrow (k7_clopan4 X0 X1 = k3_funcl.2 (u1_struct_0 \\
& X0) (u1_struct_0 X0) (k6_clopan4 X0 X1)))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
& ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\
& X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\
& ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopan2 \\
& X0) \wedge (l1_clopan2 X0)))))))))))))) \Rightarrow (\forall X1. ((v1_funcl.1 \\
& X1) \wedge ((v1_funcl.2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow \\
& ((X1 = k6_clopan4 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\
& X0) \Rightarrow (k3_funcl.2 (u1_struct_0 X0) (u1_struct_0 X0) X1 X2 = k1_clopan3 \\
& X0 (k1_clopan4 X0 X2))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
& ((v4_normsp_0 X0) \wedge ((v3_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 \\
& X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge \\
& ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge ((v5_clopan2 \\
& X0) \wedge (l1_clopan2 X0)))))))))))))) \Rightarrow (\forall X1. (m1_subset_1 \\
& X1 (u1_struct_0 X0) \Rightarrow (k7_clopan4 X0 X1 = k1_clopan3 X0 (k1_clopan4 \\
& X0 X1)))
\end{aligned}$$