

t4_cc0sp1 (TMM-
pZEW8mAqgWUrgB8WMbD3cvhTTMfAqfZ)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_cc0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_cc0sp1 : \iota \Rightarrow \iota$ be given. Let $k8_cfunclom : \iota \Rightarrow \iota$ be given. 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 $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ 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 $v2_cfunclom : \iota \Rightarrow o$ be given. Let $l1_cfunclom : \iota \Rightarrow o$ be given. Let $v3_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_cc0sp1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $g1_cfunclom : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_cc0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_cc0sp1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\
 & (v5_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 X0) \wedge ((v2_clvect_1 \\
 & X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge ((v2_cfunclom X0) \wedge \\
 & (l1_cfunclom X0)))))))))) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\
 & ((v3_c0sp1 X1 X0) \wedge ((v1_cc0sp1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
 & (u1_struct_0 X0)))))) \Rightarrow (m1_cc0sp1 (g1_cfunclom X1 (k2_c0sp1 X0 \\
 & X1) (k1_c0sp1 X0 X1) (k1_cc0sp1 X0 X1) (k4_c0sp1 X0 X1) (k3_c0sp1 \\
 & X0 X1)) X0))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow & ((\neg v2_struct_0 (k8_cfundom X0)) \wedge \\ & ((v13_algstr_0 (k8_cfundom X0)) \wedge ((v2_rlvect_1 (k8_cfundom \\ & X0)) \wedge ((v3_rlvect_1 (k8_cfundom X0)) \wedge ((v4_rlvect_1 (k8_cfundom \\ & X0)) \wedge ((v2_clvect_1 (k8_cfundom X0)) \wedge ((v3_clvect_1 (k8_cfundom \\ & X0)) \wedge ((v4_clvect_1 (k8_cfundom X0)) \wedge ((v3_group_1 (k8_cfundom \\ & X0)) \wedge ((v5_group_1 (k8_cfundom X0)) \wedge ((v1_vectsp_1 (k8_cfundom \\ & X0)) \wedge ((v3_vectsp_1 (k8_cfundom X0)) \wedge ((v2_cfundom (k8_cfundom \\ & X0)) \wedge (l1_cfundom (k8_cfundom X0)))))))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow & ((\neg v1_xboole_0 (k2_cc0sp1 X0)) \wedge \\ & ((v3_c0sp1 (k2_cc0sp1 X0) (k8_cfundom X0)) \wedge (v1_cc0sp1 (k2_cc0sp1 \\ & X0) (k8_cfundom X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow & ((\neg v1_xboole_0 (k2_cc0sp1 X0)) \wedge \\ & (m1_subset_1 (k2_cc0sp1 X0) (k1_zfmisc_1 (u1_struct_0 (k8_cfundom \\ & X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow & (k3_cc0sp1 X0 = g1_cfundom (k2_cc0sp1 \\ & X0) (k2_c0sp1 (k8_cfundom X0) (k2_cc0sp1 X0)) (k1_c0sp1 (k8_cfundom \\ & X0) (k2_cc0sp1 X0)) (k1_cc0sp1 (k8_cfundom X0) (k2_cc0sp1 X0)) \\ & (k4_c0sp1 (k8_cfundom X0) (k2_cc0sp1 X0)) (k3_c0sp1 (k8_cfundom \\ & X0) (k2_cc0sp1 X0))) \end{aligned} \quad (5)$$

Theorem 1

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow (m1_cc0sp1 (k3_cc0sp1 X0) (k8_cfundom X0))$$