

t56_ncfcont1 (TMM-
NFg8Twu1MwEcD9L2ytrHDsXvwspvRHCJ)

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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 $v2_clvect_1 : \iota \Rightarrow o$ 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 $l2_clvect_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r7_ncfcont1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v9_clvect_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$

be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
& ((v4_normsp_0 X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 \\
& X0) \wedge ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge (l2_clvect_1 X0)))))))))) \Rightarrow \\
& (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\
& X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_normsp_0 X1) \wedge \\
& ((v4_normsp_0 X1) \wedge ((v2_clvect_1 X1) \wedge ((v3_clvect_1 X1) \wedge ((v4_clvect_1 \\
& X1) \wedge ((v5_clvect_1 X1) \wedge ((v8_clvect_1 X1) \wedge (l2_clvect_1 X1)))))))))) \Rightarrow \\
& (\forall X2. \forall X3. ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((r7_ncfcont1 \\
& X0 X1 X3 X2) \Leftrightarrow ((r1_tarski X2 (k1_relset_1 (u1_struct_0 X0) X3)) \wedge \\
& (\forall X4. ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 k5_numbers (u1_struct_0 \\
& X0)) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 \\
& X0)))))) \Rightarrow (((r1_tarski (k2_relset_1 (u1_struct_0 X0) X4) X2) \wedge \\
& ((v9_clvect_1 X4 X0) \wedge (k7_clvect_1 X0 X4 \in X2))) \Rightarrow ((v9_clvect_1 \\
& (k8_funct_2 k5_numbers (u1_struct_0 X1) (u1_struct_0 X0) X4 X3) \\
& X1) \wedge (k7_partfun1 (u1_struct_0 X1) X3 (k7_clvect_1 X0 X4) = k7_clvect_1 \\
& X1 (k8_funct_2 k5_numbers (u1_struct_0 X1) (u1_struct_0 X0) X4 \\
& X3)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
& ((v4_normsp_0 X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 \\
& X0) \wedge ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge (l2_clvect_1 X0)))))))))) \Rightarrow \\
& (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\
& X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_normsp_0 X1) \wedge \\
& ((v4_normsp_0 X1) \wedge ((v2_clvect_1 X1) \wedge ((v3_clvect_1 X1) \wedge ((v4_clvect_1 \\
& X1) \wedge ((v5_clvect_1 X1) \wedge ((v8_clvect_1 X1) \wedge (l2_clvect_1 X1)))))))))) \Rightarrow \\
& (\forall X2. \forall X3. \forall X4. ((v1_funct_1 X4) \wedge (m1_subset_1 \\
& X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\
& (((r7_ncfcont1 X0 X1 X4 X2) \wedge (r1_tarski X3 X2)) \Rightarrow (r7_ncfcont1 X0 \\
& X1 X4 X3)))
\end{aligned}$$