

t128_ncfcont1

(TMNTrY4g4gWYJy8z2hCcZbTaEr9Lqgs9JCh)

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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 $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_normsp_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\
& ((v4_normsp_0 X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 \\
& X0) \wedge ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge (l2_clvect_1 X0)))))))))) \Rightarrow \\
& (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\
& X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_normsp_0 X1) \wedge \\
& ((v4_normsp_0 X1) \wedge ((v2_clvect_1 X1) \wedge ((v3_clvect_1 X1) \wedge ((v4_clvect_1 \\
& X1) \wedge ((v5_clvect_1 X1) \wedge ((v8_clvect_1 X1) \wedge (l2_clvect_1 X1)))))))))) \Rightarrow \\
& (\forall X2. \forall X3. ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))) \Rightarrow ((r7_ncfcont1 \\
& X0 X1 X3 X2) \Leftrightarrow ((r1_tarski X2 (k1_relset_1 (u1_struct_0 X0) X3)) \wedge \\
& (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5. (m1_subset_1 \\
& X5 k1_numbers) \Rightarrow (\neg (X4 \in X2) \wedge ((\neg r1_xxreal_0 X5 k6_numbers) \wedge (\forall X6. \\
& (m1_subset_1 X6 k1_numbers) \Rightarrow (\neg (\neg r1_xxreal_0 X6 k6_numbers) \wedge \\
& (\forall X7. (m1_subset_1 X7 (u1_struct_0 X0)) \Rightarrow (\neg (X7 \in X2) \wedge ((\neg \\
& r1_xxreal_0 X6 (k1_normsp_0 X0 (k5_algstr_0 X0 X7 X4)) \wedge (r1_xxreal_0 \\
& X5 (k1_normsp_0 X1 (k5_algstr_0 X1 (k7_partfun1 (u1_struct_0 X1) \\
& X3 X7) (k7_partfun1 (u1_struct_0 X1) X3 X4))))))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski\ X0\ X0 \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0)\wedge((v13_algstr_0\ X0)\wedge((v2_rlvect_1 \\ & X0)\wedge((v3_rlvect_1\ X0)\wedge((v4_rlvect_1\ X0)\wedge((v3_normsp_0\ X0)\wedge \\ & ((v4_normsp_0\ X0)\wedge((v2_clvect_1\ X0)\wedge((v3_clvect_1\ X0)\wedge((v4_clvect_1 \\ & X0)\wedge((v5_clvect_1\ X0)\wedge((v8_clvect_1\ X0)\wedge(l2_clvect_1\ X0))))))))))\Rightarrow \\ & (\forall X1.((v1_funct_1\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & (u1_struct_0\ X0)\ (u1_struct_0\ X0))))\Rightarrow((\forall X2.(m1_subset_1 \\ & X2\ (u1_struct_0\ X0))\Rightarrow((X2 \in k1_relset_1\ (u1_struct_0\ X0)\ X1)\Rightarrow(\\ & k7_partfun1\ (u1_struct_0\ X0)\ X1\ X2 = X2)))\Rightarrow(r7_ncfcont1\ X0\ X0\ X1 \\ & (k1_relset_1\ (u1_struct_0\ X0)\ X1)))) \end{aligned}$$