

t1_nfcont_2 (TMZSLf-
jAoeNY2QwPEvAbdPRKRPeB)Dumf3bB)

October 27, 2020

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 $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v2_normsp_1 : \iota \Rightarrow o$ be given. Let $l1_normsp_1 : \iota \Rightarrow o$ 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 $r1_nfcont_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge \\
& ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 \\
& X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\
& ((v3_normsp_0 X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_normsp_1 X1) \wedge (l1_normsp_1 \\
& X1)))))))))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge ((v13_algstr_0 \\
& X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge \\
& ((v5_rlvect_1 X2) \wedge ((v6_rlvect_1 X2) \wedge ((v7_rlvect_1 X2) \wedge ((v8_rlvect_1 \\
& X2) \wedge ((v3_normsp_0 X2) \wedge ((v4_normsp_0 X2) \wedge ((v2_normsp_1 X2) \wedge \\
& (l1_normsp_1 X2)))))))))) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 \\
& X2)))))) \Rightarrow ((r1_nfcont_2 X0 X1 X2 X3) \Leftrightarrow ((r1_tarski X0 (k1_relset_1 \\
& (u1_struct_0 X1) X3)) \wedge (\forall X4. (m1_subset_1 X4 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X4 k6_numbers) \wedge (\forall X5. (m1_subset_1 X5 k1_numbers) \Rightarrow \\
& (\neg(\neg r1_xxreal_0 X5 k6_numbers) \wedge (\forall X6. (m1_subset_1 X6 (\\
& u1_struct_0 X1) \Rightarrow (\forall X7. (m1_subset_1 X7 (u1_struct_0 X1) \Rightarrow \\
& (\neg(X6 \in X0) \wedge ((X7 \in X0) \wedge (\neg r1_xxreal_0 X5 (k1_normsp_0 X1 (k5_algstr_0 \\
& X1 X6 X7))) \wedge (r1_xxreal_0 X4 (k1_normsp_0 X2 (k5_algstr_0 X2 (k7_partfun1 \\
& (u1_struct_0 X2) X3 X6) (k7_partfun1 (u1_struct_0 X2) X3 X7)))))))))))))) \\
& (6)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. ((\neg v2_struct_0 X2) \wedge ((v13_algstr_0 \\
& X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge \\
& ((v5_rlvect_1 X2) \wedge ((v6_rlvect_1 X2) \wedge ((v7_rlvect_1 X2) \wedge ((v8_rlvect_1 \\
& X2) \wedge ((v3_normsp_0 X2) \wedge ((v4_normsp_0 X2) \wedge ((v2_normsp_1 X2) \wedge \\
& (l1_normsp_1 X2)))))))))) \Rightarrow (\forall X3. ((\neg v2_struct_0 X3) \wedge \\
& ((v13_algstr_0 X3) \wedge ((v2_rlvect_1 X3) \wedge ((v3_rlvect_1 X3) \wedge ((v4_rlvect_1 \\
& X3) \wedge ((v5_rlvect_1 X3) \wedge ((v6_rlvect_1 X3) \wedge ((v7_rlvect_1 X3) \wedge \\
& ((v8_rlvect_1 X3) \wedge ((v3_normsp_0 X3) \wedge ((v4_normsp_0 X3) \wedge ((v2_normsp_1 \\
& X3) \wedge (l1_normsp_1 X3)))))))))) \Rightarrow (\forall X4. ((v1_funct_1 \\
& X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X2) \\
& (u1_struct_0 X3)))))) \Rightarrow (((r1_nfcont_2 X0 X2 X3 X4) \wedge (r1_tarski X1 \\
& X0)) \Rightarrow (r1_nfcont_2 X1 X2 X3 X4)))
\end{aligned}$$