

t8_nfcont_2

(TMWSk6tZcbkRTHwMXFF8s2RhB6LRgWjmC2H)

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 $k1_numbers : \iota$ be given. Let $r2_nfcont_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_nfcont_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k18_complex1 : \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge \\
 & ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 \\
 & X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\
 & ((v3_normsp_0 X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_normsp_1 X1) \wedge (l1_normsp_1 \\
 & X1)))))))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\
 & X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) k1_numbers)))) \Rightarrow \\
 & ((r4_nfcont_1 X1 X2 X0) \Leftrightarrow ((r1_tarski X0 (k1_relset_1 (u1_struct_0 \\
 & X1) X2)) \wedge (\forall X3. (m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (\forall X4. \\
 & (m1_subset_1 X4 k1_numbers) \Rightarrow (\neg (X3 \in X0) \wedge ((\neg r1_xxreal_0 X4 k6_numbers) \wedge \\
 & (\forall X5. (m1_subset_1 X5 k1_numbers) \Rightarrow (\neg (\neg r1_xxreal_0 X5 k6_numbers) \wedge \\
 & (\forall X6. (m1_subset_1 X6 (u1_struct_0 X1)) \Rightarrow (\neg (X6 \in X0) \wedge ((\neg \\
 & r1_xxreal_0 X5 (k1_normsp_0 X1 (k5_algstr_0 X1 X6 X3))) \wedge (r1_xxreal_0 \\
 & X4 (k18_complex1 (k9_real_1 (k7_partfun1 k1_numbers X2 X6) (k7_partfun1 \\
 & k1_numbers X2 X3)))))))))))))))))
 \end{aligned}$$

(1)

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge \\
& ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 \\
& X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\
& ((v3_normsp_0 X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_normsp_1 X1) \wedge (l1_normsp_1 \\
& X1)))))))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) k1_numbers)))) \Rightarrow \\
& ((r2_nfcont_2 X0 X1 X2) \Leftrightarrow ((r1_tarski X0 (k1_relset_1 (u1_struct_0 \\
& X1) X2)) \wedge (\forall X3. (m1_subset_1 X3 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 \\
& X3 k6_numbers) \wedge (\forall X4. (m1_subset_1 X4 k1_numbers) \Rightarrow (\neg(\neg \\
& r1_xxreal_0 X4 k6_numbers) \wedge (\forall X5. (m1_subset_1 X5 (u1_struct_0 \\
& X1)) \Rightarrow (\forall X6. (m1_subset_1 X6 (u1_struct_0 X1)) \Rightarrow (\neg(X5 \in X0) \wedge \\
& ((X6 \in X0) \wedge (\neg r1_xxreal_0 X4 (k1_normsp_0 X1 (k5_algstr_0 X1 X5 \\
& X6)))) \wedge (r1_xxreal_0 X3 (k18_complex1 (k9_real_1 (k7_partfun1 \\
& k1_numbers X2 X5) (k7_partfun1 k1_numbers X2 X6))))))))))))))))) \quad (2)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge \\
& ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 \\
& X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\
& ((v3_normsp_0 X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_normsp_1 X1) \wedge (l1_normsp_1 \\
& X1)))))))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) k1_numbers)))) \Rightarrow \\
& ((r2_nfcont_2 X0 X1 X2) \Rightarrow (r4_nfcont_1 X1 X2 X0)))
\end{aligned}$$