

l18_ringcat1 (TMLFJR- rLPF6WP8jrmfdzNqG1kV1CPVQCSpg)

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 $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_ringcat1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $g1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ringcat1 : \iota \Rightarrow o$ be given. Let $l1_ringcat1 : \iota \Rightarrow o$ be given. Let $u3_ringcat1 : \iota \Rightarrow \iota$ be given. Let $u1_ringcat1 : \iota \Rightarrow \iota$ be given. Let $u2_ringcat1 : \iota \Rightarrow \iota$ be given. Let $v2_ringcat1 : \iota \Rightarrow o$ be given. Let $k1_ringcat1 : \iota \Rightarrow \iota$ be given. Let $k2_ringcat1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v3_ringcat1 X0) \wedge (l1_ringcat1 X0)) \Rightarrow (v1_ringcat1 (u3_ringcat1 X0) (u1_ringcat1 X0) (u2_ringcat1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(l1_ringcat1 X0) \Rightarrow ((v1_funct_1 (u3_ringcat1 X0)) \wedge ((v1_funct_2 (u3_ringcat1 X0) (u1_struct_0 (u1_ringcat1 X0)) (u1_struct_0 (u2_ringcat1 X0)))) \wedge (m1_subset_1 (u3_ringcat1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (u1_ringcat1 X0)) (u1_struct_0 (u2_ringcat1 X0)))))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \wedge ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_group_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))))))) \Rightarrow (\forall X2.(m1_ringcat1 X2 X0 X1) \Rightarrow ((v2_ringcat1 X2) \wedge ((v3_ringcat1 X2) \wedge (l1_ringcat1 X2)))) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\
& (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\
& (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\
& X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_group_1 X1) \wedge (\\
& (v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))))) \Rightarrow \\
& ((r1_ringcat1 X0 X1) \Rightarrow (\forall X2.((v2_ringcat1 X2) \wedge ((v3_ringcat1 \\
& X2) \wedge (l1_ringcat1 X2))) \Rightarrow ((m1_ringcat1 X2 X0 X1) \Leftrightarrow ((k1_ringcat1 \\
& X2 = X0) \wedge (k2_ringcat1 X2 = X1))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(l1_ringcat1 X0) \Rightarrow (k2_ringcat1 X0 = u2_ringcat1 X0) \tag{5}$$

Assume the following.

$$\forall X0.(l1_ringcat1 X0) \Rightarrow (k1_ringcat1 X0 = u1_ringcat1 X0) \tag{6}$$

Assume the following.

$$\forall X0.(l1_ringcat1 X0) \Rightarrow ((v2_ringcat1 X0) \Rightarrow (X0 = g1_ringcat1 \\
(u1_ringcat1 X0) (u2_ringcat1 X0) (u3_ringcat1 X0))) \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\
& (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\
& (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\
& X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_group_1 X1) \wedge (\\
& (v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))))) \Rightarrow \\
& (\forall X2.(m1_ringcat1 X2 X0 X1) \Rightarrow (\neg(r1_ringcat1 X0 X1) \wedge (\forall X3. \\
& ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 X0) (u1_struct_0 \\
& X1)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X1)))))) \Rightarrow (\neg(X2 = g1_ringcat1 X0 X1 X3) \wedge (v1_ringcat1 \\
& X3 X0 X1))))))
\end{aligned}$$