

t4_ringcat1

(TMF7ucNfwqDGfGpVRX2QtZdribp8r4r2kRy)

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Let $v2_ringcat1 : \iota \Rightarrow o$ be given. Let $v3_ringcat1 : \iota \Rightarrow o$ be given. Let $l1_ringcat1 : \iota \Rightarrow o$ be given. 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 $v1_funct_1 : \iota \Rightarrow o$ 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 $m1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_ringcat1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ringcat1 : \iota \Rightarrow \iota$ be given. Let $k2_ringcat1 : \iota \Rightarrow \iota$ be given. Let $u1_ringcat1 : \iota \Rightarrow \iota$ be given. Let $u2_ringcat1 : \iota \Rightarrow \iota$ be given. Let $u3_ringcat1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\
& (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0))))))) \Rightarrow \\
& (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\
& X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_group_1 X1) \wedge (\\
& (v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge (l6_algstr_0 X1))))))) \Rightarrow \\
& (\forall X2. (m1_ringcat1 X2 X0 X1) \Rightarrow (\neg (r1_ringcat1 X0 X1) \wedge (\forall X3. \\
& ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 X0) (u1_struct_0 \\
& X1)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X1)))))) \Rightarrow (\neg (X2 = g1_ringcat1 X0 X1 X3) \wedge (v1_ringcat1 \\
& X3 X0 X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3_ringcat1\ X0)\wedge(l1_ringcat1\ X0))\Rightarrow(\exists X1. \\
& ((\neg v2_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge((v2_rlvect_1\ X1)\wedge(\\
& v3_rlvect_1\ X1)\wedge((v4_rlvect_1\ X1)\wedge((v3_group_1\ X1)\wedge((v4_vectsp_1 \\
& X1)\wedge((v5_vectsp_1\ X1)\wedge(l6_algstr_0\ X1))))))))\wedge(\exists X2. \\
& ((\neg v2_struct_0\ X2)\wedge((v13_algstr_0\ X2)\wedge((v2_rlvect_1\ X2)\wedge(\\
& v3_rlvect_1\ X2)\wedge((v4_rlvect_1\ X2)\wedge((v3_group_1\ X2)\wedge((v4_vectsp_1 \\
& X2)\wedge((v5_vectsp_1\ X2)\wedge(l6_algstr_0\ X2))))))))\wedge((r1_ringcat1 \\
& X1\ X2)\wedge((k1_ringcat1\ X0 = X1)\wedge((k2_ringcat1\ X0 = X2)\wedge(m1_ringcat1 \\
& (g1_ringcat1\ (u1_ringcat1\ X0)\ (u2_ringcat1\ X0)\ (u3_ringcat1\ X0)) \\
& X1\ X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(l1_ringcat1\ X0)\Rightarrow((v2_ringcat1\ X0)\Rightarrow(X0 = g1_ringcat1 \\
(u1_ringcat1\ X0)\ (u2_ringcat1\ X0)\ (u3_ringcat1\ X0))) \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v2_ringcat1\ X0)\wedge((v3_ringcat1\ X0)\wedge(l1_ringcat1 \\
& X0)))\Rightarrow(\exists X1.((\neg v2_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge(\\
& v2_rlvect_1\ X1)\wedge((v3_rlvect_1\ X1)\wedge((v4_rlvect_1\ X1)\wedge((v3_group_1 \\
& X1)\wedge((v4_vectsp_1\ X1)\wedge((v5_vectsp_1\ X1)\wedge(l6_algstr_0\ X1))))))))\wedge \\
& (\exists X2.((\neg v2_struct_0\ X2)\wedge((v13_algstr_0\ X2)\wedge((v2_rlvect_1 \\
& X2)\wedge((v3_rlvect_1\ X2)\wedge((v4_rlvect_1\ X2)\wedge((v3_group_1\ X2)\wedge(\\
& (v4_vectsp_1\ X2)\wedge((v5_vectsp_1\ X2)\wedge(l6_algstr_0\ X2))))))))\wedge \\
& (\exists X3.((v1_funct_1\ X3)\wedge((v1_funct_2\ X3\ (u1_struct_0\ X1) \\
& (u1_struct_0\ X2))\wedge(m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1 \\
& (u1_struct_0\ X1)\ (u1_struct_0\ X2))))))\wedge((m1_ringcat1\ X0\ X1\ X2)\wedge \\
& ((X0 = g1_ringcat1\ X1\ X2\ X3)\wedge(v1_ringcat1\ X3\ X1\ X2))))))
\end{aligned}$$