

t2_ringcat1 (TM- SEsm7qMKgiqtwTnp3WppmtKSVEsJMTehc)

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

$$\begin{aligned}
& \forall X0.((v3_ringcat1 X0) \wedge (l1_ringcat1 X0)) \Rightarrow (\exists X1. \\
& ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((\\
& v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v3_group_1 X1) \wedge ((v4_vectsp_1 \\
& X1) \wedge ((v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))))))) \wedge (\exists X2. \\
& ((\neg v2_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge ((v2_rlvect_1 X2) \wedge ((\\
& v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge ((v3_group_1 X2) \wedge ((v4_vectsp_1 \\
& X2) \wedge ((v5_vectsp_1 X2) \wedge (l6_algstr_0 X2)))))))))) \wedge ((r1_ringcat1 \\
& X1 X2) \wedge ((k1_ringcat1 X0 = X1) \wedge ((k2_ringcat1 X0 = X2) \wedge (m1_ringcat1 \\
& (g1_ringcat1 (u1_ringcat1 X0) (u2_ringcat1 X0) (u3_ringcat1 X0)) \\
& X1 X2))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_ringcat1 X0) \Rightarrow ((\neg v2_struct_0 (k2_ringcat1 X0)) \wedge \\
& ((v13_algstr_0 (k2_ringcat1 X0)) \wedge ((v2_rlvect_1 (k2_ringcat1 \\
& X0)) \wedge ((v3_rlvect_1 (k2_ringcat1 X0)) \wedge ((v4_rlvect_1 (k2_ringcat1 \\
& X0)) \wedge ((v3_group_1 (k2_ringcat1 X0)) \wedge ((v4_vectsp_1 (k2_ringcat1 \\
& X0)) \wedge ((v5_vectsp_1 (k2_ringcat1 X0)) \wedge (l6_algstr_0 (k2_ringcat1 \\
& X0))))))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v3_ringcat1\ X0)\wedge(l1_ringcat1\ X0))\Rightarrow(\forall X1. \\
& ((v3_ringcat1\ X1)\wedge(l1_ringcat1\ X1))\Rightarrow(\neg(k1_ringcat1\ X0 = k2_ringcat1 \\
& X1)\wedge(\forall X2.((\neg v2_struct_0\ X2)\wedge((v13_algstr_0\ X2)\wedge((v2_rlvect_1 \\
& X2)\wedge((v3_rlvect_1\ X2)\wedge((v4_rlvect_1\ X2)\wedge((v3_group_1\ X2)\wedge \\
& (v4_vectsp_1\ X2)\wedge((v5_vectsp_1\ X2)\wedge(l6_algstr_0\ X2))))))))\Rightarrow \\
& (\forall X3.((\neg v2_struct_0\ X3)\wedge((v13_algstr_0\ X3)\wedge((v2_rlvect_1 \\
& X3)\wedge((v3_rlvect_1\ X3)\wedge((v4_rlvect_1\ X3)\wedge((v3_group_1\ X3)\wedge \\
& (v4_vectsp_1\ X3)\wedge((v5_vectsp_1\ X3)\wedge(l6_algstr_0\ X3))))))))\Rightarrow \\
& (\forall X4.((\neg v2_struct_0\ X4)\wedge((v13_algstr_0\ X4)\wedge((v2_rlvect_1 \\
& X4)\wedge((v3_rlvect_1\ X4)\wedge((v4_rlvect_1\ X4)\wedge((v3_group_1\ X4)\wedge \\
& (v4_vectsp_1\ X4)\wedge((v5_vectsp_1\ X4)\wedge(l6_algstr_0\ X4))))))))\Rightarrow \\
& (\neg(r1_ringcat1\ X2\ X3)\wedge(r1_ringcat1\ X3\ X4)\wedge((m1_ringcat1\ (g1_ringcat1 \\
& (u1_ringcat1\ X0)\ (u2_ringcat1\ X0)\ (u3_ringcat1\ X0))\ X3\ X4)\wedge(m1_ringcat1 \\
& (g1_ringcat1\ (u1_ringcat1\ X1)\ (u2_ringcat1\ X1)\ (u3_ringcat1\ X1)) \\
& X2\ X3))))))
\end{aligned}$$