

t3_ringcat1

(TMSGPEBRVs9Tutjf5wrB9icvgjpkZ2tru7N)

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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 $m1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ringcat1 : \iota \Rightarrow \iota$ be given. Let $k2_ringcat1 : \iota \Rightarrow \iota$ be given. Let $r1_ringcat1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $g1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(l1_ringcat1 X0) \Rightarrow ((v2_ringcat1 X0) \Rightarrow (X0 = g1_ringcat1 \\
(u1_ringcat1 X0) (u2_ringcat1 X0) (u3_ringcat1 X0))) \tag{2}$$

Theorem 1

$$\forall X0.((v2_ringcat1 X0) \wedge ((v3_ringcat1 X0) \wedge (l1_ringcat1 \\
X0))) \Rightarrow ((m1_ringcat1 X0 (k1_ringcat1 X0) (k2_ringcat1 X0)) \wedge (r1_ringcat1 \\
(k1_ringcat1 X0) (k2_ringcat1 X0)))$$