

t102_semi_af1
(TMGKR5Dc6QLsDqvrcMe5rgHLDYosNeuWURJ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_semi_af1 : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_semi_af1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v1_semi_af1 X0) \wedge (l1_analoaf \\ & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\neg (X1 \neq X2) \wedge (\forall X3. (m1_subset_1 \\ & \quad X3 (u1_struct_0 X0)) \Rightarrow (\neg (r1_semi_af1 X0 X1 X2 X3) \wedge ((X3 \neq X1) \wedge (X3 \neq \\ & \quad X2))))))) \end{aligned} \tag{1}$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v1_semi_af1 X0) \wedge (l1_analoaf X0))) \Rightarrow (\exists X1.(m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\exists X3.(m1_subset_1 X3 (u1_struct_0 X0)) \wedge ((X1 \neq X2) \wedge ((X2 \neq X3) \wedge (X3 \neq X1))))))$$