

t7_diraf

(TMc2FAGm4xp1kuDqubQmbKELXNkaPW2FXJi)

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Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v2_analoaf : \iota \Rightarrow o$ 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 $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow ((r2_analoaf X0 X1 X2 X1 X3) \Leftrightarrow ((r2_analoaf X0 \\ & X1 X2 X2 X3) \vee (r2_analoaf X0 X1 X3 X3 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (l1_analoaf X0) \Rightarrow (l1_struct_0 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & ((r1_diraf X0 X1 X2 X3) \Leftrightarrow (r2_analoaf X0 X1 X2 X2 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow ((\neg v7_struct_0 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow ((r2_analoaf X0 X1 X2 X1 X3) \Leftrightarrow ((r1_diraf X0 X1 \\ & X2 X3) \vee (r1_diraf X0 X1 X3 X2)))))) \end{aligned}$$