

t28_analoaf

(TMXvbf6aDnhB2LiwvAVrAW27YPnj35G9j6L)

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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 $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $k2_analoaf : \iota \Rightarrow \iota$ be given. Let $v2_analoaf : \iota \Rightarrow o$ be given. Let $v3_analoaf : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_analoaf : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
 & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
 & X0)))))))))) \Rightarrow ((\exists X1. (m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\
 & (\exists X2. (m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\forall X3. (m1_subset_1 \\
 & X3 k1_numbers) \Rightarrow (\forall X4. (m1_subset_1 X4 k1_numbers) \Rightarrow ((k3_rlvect_1 \\
 & X0 (k1_rlvect_1 X0 X1 X3) (k1_rlvect_1 X0 X2 X4) = k4_struct_0 X0) \Rightarrow \\
 & ((X3 = k6_numbers) \wedge (X4 = k6_numbers)))))) \Rightarrow ((\neg v7_struct_0 (k2_analoaf \\
 & X0)) \wedge ((v2_analoaf (k2_analoaf X0)) \wedge (l1_analoaf (k2_analoaf \\
 & X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow ((\exists X1.(m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\
& (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\exists X4.(m1_subset_1 X4 k1_numbers) \wedge \\
& (\exists X5.(m1_subset_1 X5 k1_numbers) \wedge (k3_rlvect_1 X0 (k1_rlvect_1 \\
& X0 X1 X4) (k1_rlvect_1 X0 X2 X5) = X3)))))) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 (u1_struct_0 (k2_analoaf X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& (u1_struct_0 (k2_analoaf X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (\\
& u1_struct_0 (k2_analoaf X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
& (k2_analoaf X0)) \Rightarrow (\neg(\neg r2_analoaf (k2_analoaf X0) X1 X2 X3 X4) \wedge \\
& ((\neg r2_analoaf (k2_analoaf X0) X1 X2 X4 X3) \wedge (\forall X5.(m1_subset_1 \\
& X5 (u1_struct_0 (k2_analoaf X0)) \Rightarrow (\neg((r2_analoaf (k2_analoaf \\
& X0) X1 X2 X1 X5) \vee (r2_analoaf (k2_analoaf X0) X1 X2 X5 X1)) \wedge ((r2_analoaf \\
& (k2_analoaf X0) X3 X4 X3 X5) \vee (r2_analoaf (k2_analoaf X0) X3 X4 X5 \\
& X3)))))))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow ((v1_analoaf (k2_analoaf X0)) \wedge (l1_analoaf (k2_analoaf \\
& X0)))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\
& X0))) \Rightarrow ((v3_analoaf X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
& (u1_struct_0 X0)) \Rightarrow (\neg(\neg r2_analoaf X0 X1 X2 X3 X4) \wedge ((\neg r2_analoaf \\
& X0 X1 X2 X4 X3) \wedge (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\\
& \neg((r2_analoaf X0 X1 X2 X1 X5) \vee (r2_analoaf X0 X1 X2 X5 X1)) \wedge ((r2_analoaf \\
& X0 X3 X4 X3 X5) \vee (r2_analoaf X0 X3 X4 X5 X3))))))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))))))) \Rightarrow ((\exists X1.(m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\ & (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge ((\forall X3.(\\ & m1_subset_1 X3 k1_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow \\ & ((k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X3) (k1_rlvect_1 X0 X2 X4) = k4_struct_0 \\ & X0) \Rightarrow ((X3 = k6_numbers) \wedge (X4 = k6_numbers)))))) \wedge (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow (\exists X4.(m1_subset_1 X4 k1_numbers) \wedge \\ & (\exists X5.(m1_subset_1 X5 k1_numbers) \wedge (X3 = k3_rlvect_1 X0 (\\ & k1_rlvect_1 X0 X1 X4) (k1_rlvect_1 X0 X2 X5)))))))))) \Rightarrow ((\neg v7_struct_0 \\ & (k2_analoaf X0)) \wedge ((v2_analoaf (k2_analoaf X0)) \wedge ((v3_analoaf \\ & (k2_analoaf X0)) \wedge (l1_analoaf (k2_analoaf X0)))))) \end{aligned}$$