

t62_analmetr
(TMVkaXvTXnj7jMrD4BRyohk7TUDD99cFVET)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_analmetr : \iota \Rightarrow o$ be given. Let $l1_analmetr : \iota \Rightarrow o$ 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 $r4_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $g1_analoaf : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_analoaf : \iota \Rightarrow \iota$ be given. Let $v1_diraf : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& ((r4_analmetr X0 X1 X2 X3 X4) \Rightarrow ((r4_analmetr X0 X1 X2 X4 X3) \wedge ((r4_analmetr \\
& X0 X2 X1 X3 X4) \wedge ((r4_analmetr X0 X2 X1 X4 X3) \wedge ((r4_analmetr X0 X3 X4 \\
& X1 X2) \wedge ((r4_analmetr X0 X3 X4 X2 X1) \wedge ((r4_analmetr X0 X4 X3 X1 X2) \wedge \\
& (r4_analmetr X0 X4 X3 X2 X1))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& ((r2_analoaf X0 X1 X2 X3 X4) \Rightarrow ((r2_analoaf X0 X1 X2 X4 X3) \wedge ((r2_analoaf \\
& X0 X2 X1 X3 X4) \wedge ((r2_analoaf X0 X2 X1 X4 X3) \wedge ((r2_analoaf X0 X3 X4 X1 \\
& X2) \wedge ((r2_analoaf X0 X3 X4 X2 X1) \wedge ((r2_analoaf X0 X4 X3 X1 X2) \wedge (r2_analoaf \\
& X0 X4 X3 X2 X1))))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analmetr X0)) \Rightarrow ((v2_analmetr \\
& X0) \Leftrightarrow (((\neg v7_struct_0 (g1_analoaf (u1_struct_0 X0) (u1_analoaf \\
& X0))) \wedge ((v1_diraf (g1_analoaf (u1_struct_0 X0) (u1_analoaf X0))) \wedge \\
& (l1_analoaf (g1_analoaf (u1_struct_0 X0) (u1_analoaf X0)))))) \wedge \\
& ((\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 \\
& (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 \\
& X6 (u1_struct_0 X0)) \Rightarrow (\forall X7.(m1_subset_1 X7 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X8.(m1_subset_1 X8 (u1_struct_0 X0)) \Rightarrow (((r4_analmetr \\
X0 X1 X2 X1 X2) \Rightarrow (X1 = X2)) \wedge ((r4_analmetr X0 X1 X2 X3 X3) \wedge ((r4_analmetr \\
X0 X1 X2 X3 X4) \Rightarrow ((r4_analmetr X0 X1 X2 X4 X3) \wedge (r4_analmetr X0 X3 X4 \\
X1 X2))) \wedge ((\neg (r4_analmetr X0 X1 X2 X5 X6) \wedge ((r2_analoaf X0 X1 X2 X7 \\
X8) \wedge ((\neg r4_analmetr X0 X5 X6 X7 X8) \wedge (X1 \neq X2)))) \wedge (((r4_analmetr \\
X0 X1 X2 X5 X6) \wedge (r4_analmetr X0 X1 X2 X5 X8)) \Rightarrow (r4_analmetr X0 X1 X2 \\
X6 X8)))))))))) \wedge ((\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 (\neg (X1 \neq X2) \wedge (\forall X4.(m1_subset_1 \\
X4 (u1_struct_0 X0)) \Rightarrow (\neg (r2_analoaf X0 X1 X2 X1 X4) \wedge (r4_analmetr \\
X0 X1 X2 X4 X3)))))) \wedge ((\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 (\exists X4.(m1_subset_1 X4 \\
(u1_struct_0 X0)) \wedge ((r4_analmetr X0 X1 X2 X3 X4) \wedge (X3 \neq X4)))))))))) \\
& \tag{3}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr \\
& X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 \\
& X6 (u1_struct_0 X0)) \Rightarrow (\neg (X1 \neq X2) \wedge ((\neg (\neg (r2_analoaf X0 X1 X2 X3 X4) \wedge \\
(r4_analmetr X0 X1 X2 X5 X6)) \wedge ((\neg (r2_analoaf X0 X1 X2 X5 X6) \wedge (r4_analmetr \\
X0 X1 X2 X3 X4)) \wedge ((\neg (r2_analoaf X0 X1 X2 X3 X4) \wedge (r4_analmetr X0 X5 \\
X6 X1 X2)) \wedge ((\neg (r2_analoaf X0 X1 X2 X5 X6) \wedge (r4_analmetr X0 X3 X4 X1 \\
X2)) \wedge ((\neg (r2_analoaf X0 X3 X4 X1 X2) \wedge (r4_analmetr X0 X5 X6 X1 X2)) \wedge \\
((\neg (r2_analoaf X0 X5 X6 X1 X2) \wedge (r4_analmetr X0 X3 X4 X1 X2)) \wedge ((\neg \\
r2_analoaf X0 X3 X4 X1 X2) \wedge (r4_analmetr X0 X1 X2 X5 X6)) \wedge (\neg (r2_analoaf \\
X0 X5 X6 X1 X2) \wedge (r4_analmetr X0 X1 X2 X3 X4)))))))))) \wedge (\neg r4_analmetr \\
& X0 X3 X4 X5 X6)))))) \\
& \tag{3}
\end{aligned}$$