

t7_euclmetr
(TMGD1srcXjGnV4rHsL73mbfzfoSfejCRR1G)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_analmetr : \iota \Rightarrow o$ 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 $r4_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_analmetr : \iota \Rightarrow o$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr \\
& \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& \quad (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& \quad (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 \\
& \quad X6 (u1_struct_0 X0)) \Rightarrow (\neg(X1 \neq X2) \wedge ((\neg(\neg(r2_analoaf X0 X1 X2 X3 X4) \wedge \\
& \quad (r4_analmetr X0 X1 X2 X5 X6)) \wedge ((\neg(r2_analoaf X0 X1 X2 X5 X6) \wedge (r4_analmetr \\
& \quad X0 X1 X2 X3 X4)) \wedge ((\neg(r2_analoaf X0 X1 X2 X3 X4) \wedge (r4_analmetr X0 X5 \\
& \quad X6 X1 X2)) \wedge ((\neg(r2_analoaf X0 X1 X2 X5 X6) \wedge (r4_analmetr X0 X3 X4 X1 \\
& \quad X2)) \wedge ((\neg(r2_analoaf X0 X3 X4 X1 X2) \wedge (r4_analmetr X0 X5 X6 X1 X2)) \wedge \\
& \quad ((\neg(r2_analoaf X0 X5 X6 X1 X2) \wedge (r4_analmetr X0 X3 X4 X1 X2)) \wedge ((\neg \\
& \quad r2_analoaf X0 X3 X4 X1 X2) \wedge (r4_analmetr X0 X1 X2 X5 X6)) \wedge (\neg(r2_analoaf \\
& \quad X0 X5 X6 X1 X2) \wedge (r4_analmetr X0 X1 X2 X3 X4)))))))))) \wedge (\neg(r4_analmetr \\
& \quad X0 X3 X4 X5 X6)))))))))
\end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr \\
& \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& \quad (u1_struct_0 X0)) \Rightarrow ((r5_analmetr X0 X1 X2 X3) \Rightarrow ((r5_analmetr X0 \\
& \quad X1 X3 X2) \wedge ((r5_analmetr X0 X2 X1 X3) \wedge ((r5_analmetr X0 X2 X3 X1) \wedge (\\
& \quad (r5_analmetr X0 X3 X1 X2) \wedge (r5_analmetr X0 X3 X2 X1))))))))) \\
& \tag{3}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analmetr X0)) \Rightarrow ((v2_analmetr \\
& \quad X0) \Leftrightarrow (((\neg v7_struct_0 (g1_analoaf (u1_struct_0 X0) (u1_analoaf \\
& \quad X0))) \wedge ((v1_diraf (g1_analoaf (u1_struct_0 X0) (u1_analoaf X0))) \wedge \\
& \quad (l1_analoaf (g1_analoaf (u1_struct_0 X0) (u1_analoaf X0)))))) \wedge \\
& \quad ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(\\
& \quad m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& \quad (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& \quad (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 \\
& \quad X6 (u1_struct_0 X0)) \Rightarrow (\forall X7.(m1_subset_1 X7 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X8.(m1_subset_1 X8 (u1_struct_0 X0)) \Rightarrow (((r4_analmetr \\
& \quad X0 X1 X2 X1 X2) \Rightarrow (X1 = X2)) \wedge ((r4_analmetr X0 X1 X2 X3 X3) \wedge ((r4_analmetr \\
& \quad X0 X1 X2 X3 X4) \Rightarrow ((r4_analmetr X0 X1 X2 X4 X3) \wedge (r4_analmetr X0 X3 X4 \\
& \quad X1 X2))) \wedge ((\neg (r4_analmetr X0 X1 X2 X5 X6) \wedge ((r2_analoaf X0 X1 X2 X7 \\
& \quad X8) \wedge ((\neg r4_analmetr X0 X5 X6 X7 X8) \wedge (X1 \neq X2)))))) \wedge (((r4_analmetr \\
& \quad X0 X1 X2 X5 X6) \wedge (r4_analmetr X0 X1 X2 X5 X8)) \Rightarrow (r4_analmetr X0 X1 X2 \\
& \quad X6 X8))))))))) \wedge ((\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\neg (X1 \neq X2) \wedge (\forall X4.(m1_subset_1 \\
& \quad X4 (u1_struct_0 X0)) \Rightarrow (\neg (r2_analoaf X0 X1 X2 X1 X4) \wedge (r4_analmetr \\
& \quad X0 X1 X2 X4 X3)))))) \wedge (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\exists X4.(m1_subset_1 X4 \\
& \quad (u1_struct_0 X0)) \wedge ((r4_analmetr X0 X1 X2 X3 X4) \wedge (X3 \neq X4))))))))) \\
& \tag{4}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analmetr X0)) \Rightarrow (\forall X1. \\
& \quad (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& \quad (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\
& \quad ((r5_analmetr X0 X1 X2 X3) \Leftrightarrow (r2_analoaf X0 X1 X2 X1 X3)))) \\
& \tag{5}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_analmetr X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v3_analmetr \\
& \quad X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v2_analmetr X0))) \\
& \tag{6}
\end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge (l1_analmetr \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & (\neg(r4_analmetr X0 X1 X2 X3 X4) \wedge ((r4_analmetr X0 X2 X3 X1 X4) \wedge ((r5_analmetr \\ & X0 X1 X2 X3) \wedge ((X1 \neq X3) \wedge ((X1 \neq X2) \wedge (X2 \neq X3)))))))))) \end{aligned}$$