

t1_analmetr (TMEmqG-
jAbF5yGvkQYv37gXmzNVFaCecXYwC)

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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 $r1_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
 & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
 & X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
 & (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 \\
 & X3 k1_numbers) \Rightarrow (\forall X4. (m1_subset_1 X4 k1_numbers) \Rightarrow (\forall X5. \\
 & (m1_subset_1 X5 k1_numbers) \Rightarrow (\forall X6. (m1_subset_1 X6 k1_numbers) \Rightarrow \\
 & (((r1_analmetr X0 X1 X2) \wedge (k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X3) \\
 & (k1_rlvect_1 X0 X2 X4) = k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X5) (k1_rlvect_1 \\
 & X0 X2 X6))) \Rightarrow ((X3 = X5) \wedge (X4 = X6))))))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
& X0)) \Rightarrow ((r2_analmetr X0 X1 X2 X3 X4) \Leftrightarrow (\exists X5.(m1_subset_1 X5 \\
& k1_numbers) \wedge (\exists X6.(m1_subset_1 X6 k1_numbers) \wedge (\exists X7. \\
& (m1_subset_1 X7 k1_numbers) \wedge (\exists X8.(m1_subset_1 X8 k1_numbers) \wedge \\
& ((X1 = k3_rlvect_1 X0 (k1_rlvect_1 X0 X3 X5) (k1_rlvect_1 X0 X4 X6)) \wedge \\
& ((X2 = k3_rlvect_1 X0 (k1_rlvect_1 X0 X3 X7) (k1_rlvect_1 X0 X4 X8)) \wedge \\
& (k7_real_1 (k8_real_1 X5 X7) (k8_real_1 X6 X8) = k6_numbers))))))))))))) \\
& \tag{2}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_analmetr \\
& X0 X1 X2) \Leftrightarrow ((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\exists X4. \\
& (m1_subset_1 X4 k1_numbers) \wedge (\exists X5.(m1_subset_1 X5 k1_numbers) \wedge \\
& (X3 = k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X4) (k1_rlvect_1 X0 X2 X5)))))) \wedge \\
& (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow (\forall X4.(m1_subset_1 \\
& X4 k1_numbers) \Rightarrow ((k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X3) (k1_rlvect_1 \\
& X0 X2 X4) = k4_struct_0 X0) \Rightarrow ((X3 = k6_numbers) \wedge (X4 = k6_numbers))))))))) \\
& \tag{3}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
& X0)) \Rightarrow ((r1_analmetr X0 X3 X4) \Rightarrow ((r2_analmetr X0 X1 X2 X3 X4) \Leftrightarrow (\forall X5. \\
& (m1_subset_1 X5 k1_numbers) \Rightarrow (\forall X6.(m1_subset_1 X6 k1_numbers) \Rightarrow \\
& (\forall X7.(m1_subset_1 X7 k1_numbers) \Rightarrow (\forall X8.(m1_subset_1 \\
& X8 k1_numbers) \Rightarrow (((X1 = k3_rlvect_1 X0 (k1_rlvect_1 X0 X3 X5) (k1_rlvect_1 \\
& X0 X4 X6)) \wedge (X2 = k3_rlvect_1 X0 (k1_rlvect_1 X0 X3 X7) (k1_rlvect_1 \\
& X0 X4 X8)) \Rightarrow (k7_real_1 (k8_real_1 X5 X7) (k8_real_1 X6 X8) = k6_numbers))))))))))))) \\
& \tag{3}
\end{aligned}$$