

t1_anproj_2 (TMcBTMjEzALRMJjmB- vQyf5GCZeTSU2MLYKb)

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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 $v9_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_anproj_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_anproj_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow ((\neg r2_anproj_1 X0 X1 X2 X3) \Rightarrow ((\neg v9_struct_0 \\ & X1 X0) \wedge ((\neg v9_struct_0 X2 X0) \wedge ((\neg v9_struct_0 X3 X0) \wedge ((\neg r1_anproj_1 \\ & X0 X1 X2) \wedge ((\neg r1_anproj_1 X0 X2 X3) \wedge (\neg r1_anproj_1 X0 X3 X1)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow ((r2_anproj_1 X0 X1 X2 X3) \Leftrightarrow (\exists X4. (m1_subset_1 \\ & X4 k1_numbers) \wedge (\exists X5. (m1_subset_1 X5 k1_numbers) \wedge (\exists X6. \\ & (m1_subset_1 X6 k1_numbers) \wedge ((k3_rlvect_1 X0 (k3_rlvect_1 X0 \\ & (k1_rlvect_1 X0 X1 X4) (k1_rlvect_1 X0 X2 X5)) (k1_rlvect_1 X0 X3 \\ & X6) = k4_struct_0 X0) \wedge (\neg (X4 = k6_numbers) \wedge ((X5 = k6_numbers) \wedge \\ & X6 = k6_numbers)))))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow ((\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow \\ & (\forall X5.(m1_subset_1 X5 k1_numbers) \Rightarrow (\forall X6.(m1_subset_1 \\ & X6 k1_numbers) \Rightarrow ((k3_rlvect_1 X0 (k3_rlvect_1 X0 (k1_rlvect_1 \\ & X0 X1 X4) (k1_rlvect_1 X0 X2 X5)) (k1_rlvect_1 X0 X3 X6) = k4_struct_0 \\ & X0) \Rightarrow ((X4 = k6_numbers) \wedge ((X5 = k6_numbers) \wedge (X6 = k6_numbers)))))) \Rightarrow \\ & ((\neg v9_struct_0 X1 X0) \wedge ((\neg v9_struct_0 X2 X0) \wedge ((\neg v9_struct_0 X3 \\ & X0) \wedge ((\neg r2_anproj_1 X0 X1 X2 X3) \wedge (\neg r1_anproj_1 X0 X1 X2)))))))))) \end{aligned}$$