

t17_anproj_1 (TMVpBZ-
soAEReQ9WX9iX99Pd35EMByWy6dzi)

October 27, 2020

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

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

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow ((\neg r2_anproj_1 X0 X1 X2 X3) \Rightarrow (\forall X4.(\\ & m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 \\ & (u1_struct_0 X0)) \Rightarrow (\neg(\neg v9_struct_0 X4 X0) \wedge ((\neg v9_struct_0 X5 X0) \wedge \\ & ((\neg r1_anproj_1 X0 X4 X5) \wedge (\forall X6.(m1_subset_1 X6 (u1_struct_0 \\ & X0)) \Rightarrow (r2_anproj_1 X0 X4 X5 X6)))))))))) \end{aligned} \quad (2)$$

Theorem 1

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