

t7_projpl_1
(TMd45DiKtX762u44HfzKvHULXSeeM8Ru28G)

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Let $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $v6_incsp_1 : \iota \Rightarrow o$ be given. Let $v1_incproj : \iota \Rightarrow o$ be given. Let $v2_incproj : \iota \Rightarrow o$ be given. Let $v3_incproj : \iota \Rightarrow o$ be given. Let $v4_incproj : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u2_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $r1_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\ & ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge (l1_incsp_1 X0)))))) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\exists X2.(m1_subset_1 X2 \\ & (u2_incsp_1 X0)) \wedge (\exists X3.(m1_subset_1 X3 (u2_incsp_1 X0)) \wedge \\ & (\exists X4.(m1_subset_1 X4 (u2_incsp_1 X0)) \wedge (r1_incsp_1 X0 \\ & X1 X2) \wedge ((r1_incsp_1 X0 X1 X3) \wedge (r1_incsp_1 X0 X1 X4) \wedge ((X2 \neq X3) \wedge \\ & ((X3 \neq X4) \wedge (X4 \neq X2)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_incsp_1 X0) \Rightarrow ((v2_incproj X0) \Leftrightarrow (\neg \forall X1.(m1_subset_1 \\ & X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u2_incsp_1 X0)) \Rightarrow \\ & (r1_incsp_1 X0 X1 X2)))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_incsp_1 X0) \Rightarrow (\neg((v6_incsp_1 X0) \wedge ((v1_incproj \\ & X0) \wedge ((v2_incproj X0) \wedge ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge (l1_incsp_1 \\ & X0)))))) \wedge (\forall X1.(m1_subset_1 X1 (u2_incsp_1 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u2_incsp_1 X0)) \Rightarrow (X1 = X2)))) \end{aligned}$$