

t31_projpl_1

(TMYJFP6bKFXPuiAf8KoAJgQm3vyAKitzPYW)

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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 $v5_incproj : \iota \Rightarrow o$ be given. Let $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u2_incsp_1 : \iota \Rightarrow \iota$ be given. Let $r1_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_projpl_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\
& ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge ((v5_incproj X0) \wedge (l1_incsp_1 \\
& X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u2_incsp_1 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u2_incsp_1 X0)) \Rightarrow ((X2 \neq X3) \Rightarrow ((r1_incsp_1 X0 (k2_projpl_1 X0 X2 \\
& X3) X2) \wedge ((r1_incsp_1 X0 (k2_projpl_1 X0 X2 X3) X3) \wedge ((k2_projpl_1 \\
& X0 X2 X3 = k2_projpl_1 X0 X3 X2) \wedge ((r1_incsp_1 X0 X1 X2) \wedge (r1_incsp_1 \\
& X0 X1 X3)) \Rightarrow (X1 = k2_projpl_1 X0 X2 X3)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v6_incsp_1 X0) \wedge ((v1_incproj \\
& X0) \wedge ((v2_incproj X0) \wedge ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge ((v5_incproj \\
& X0) \wedge (l1_incsp_1 X0)))))) \wedge ((m1_subset_1 X1 (u2_incsp_1 X0)) \wedge \\
& (m1_subset_1 X2 (u2_incsp_1 X0))) \Rightarrow (m1_subset_1 (k2_projpl_1 \\
& X0 X1 X2) (u1_incsp_1 X0))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v6_incsp_1 X0) \wedge ((v1_incproj X0) \wedge ((v2_incproj X0) \wedge \\
& ((v3_incproj X0) \wedge ((v4_incproj X0) \wedge ((v5_incproj X0) \wedge (l1_incsp_1 \\
& X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u2_incsp_1 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u2_incsp_1 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u2_incsp_1 X0)) \Rightarrow \\
& (((r1_incsp_1 X0 X1 X3) \wedge (r1_incsp_1 X0 X1 X4)) \Rightarrow ((X3 = X4) \vee ((r1_incsp_1 \\
& X0 X1 X2) \vee ((k2_projpl_1 X0 X2 X3 \neq k2_projpl_1 X0 X2 X4) \wedge (k2_projpl_1 \\
& X0 X3 X2 \neq k2_projpl_1 X0 X4 X2)))))))))
\end{aligned}$$