

t11_incproj
(TMQBphDu6QcaKK7h4w5nUF8r7YHCghXXFxL)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_collsp : \iota \Rightarrow o$ be given. Let $v3_collsp : \iota \Rightarrow o$ be given. Let $v4_collsp : \iota \Rightarrow o$ be given. Let $l1_collsp : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $k3_incproj : \iota \Rightarrow \iota$ 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 $m1_incproj : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_collsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1. (m1_incproj \\ X1 X0) \Leftrightarrow (m1_subset_1 X1 (u2_incsp_1 (k3_incproj X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0)) \Leftrightarrow (m1_subset_1 X1 (u1_incsp_1 (k3_incproj \\ X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_incsp_1 (k3_incproj X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ (u1_incsp_1 (k3_incproj X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 \\ (k3_incproj X0))) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ (\forall X5. (m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6. (m1_subset_1 \\ X6 (u1_struct_0 X0)) \Rightarrow (((X1 = X4) \wedge ((X2 = X5) \wedge (X3 = X6))) \Rightarrow ((r1_collsp \\ X0 X4 X5 X6) \Leftrightarrow (\exists X7. (m1_subset_1 X7 (u2_incsp_1 (k3_incproj \\ X0))) \wedge ((r1_incsp_1 (k3_incproj X0) X1 X7) \wedge ((r1_incsp_1 (k3_incproj \\ X0) X2 X7) \wedge (r1_incsp_1 (k3_incproj X0) X3 X7))))))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\exists X1. m1_incproj X1 \\ X0) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
\forall X0.((\neg v2_struct_0 X0) \wedge (l1_collsp X0)) \Rightarrow ((v4_collsp X0) \Leftrightarrow \\
(\neg \forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(\\
m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
(u1_struct_0 X0)) \Rightarrow (r1_collsp X0 X1 X2 X3)))))) \quad (5)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\
((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\neg \forall X1.(m1_subset_1 \\
X1 (u1_incsp_1 (k3_incproj X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
(u2_incsp_1 (k3_incproj X0)) \Rightarrow (r1_incsp_1 (k3_incproj X0) X1 \\
X2))))
\end{aligned}$$