

## t35\_projpl\_1

(TMGzU7aeVQU76G2kejewxWnhAmaRTB3wM6X)

October 27, 2020

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  $r1\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_projpl\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u2\_incsp\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge (l1\_incsp\_1 X0)))))) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ & (u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \Rightarrow \\ & ((r1\_incsp\_1 X0 X3 (k1\_projpl\_1 X0 X1 X2)) \Rightarrow ((X1 = X3) \vee (r1\_incsp\_1 \\ & X0 X2 (k1\_projpl\_1 X0 X1 X3))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge (l1\_incsp\_1 X0)))))) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ & (u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u2\_incsp\_1 X0)) \Rightarrow \\ & ((X1 \neq X2) \Rightarrow ((r1\_incsp\_1 X0 X1 (k1\_projpl\_1 X0 X1 X2)) \wedge ((r1\_incsp\_1 \\ & X0 X2 (k1\_projpl\_1 X0 X1 X2)) \wedge ((k1\_projpl\_1 X0 X1 X2 = k1\_projpl\_1 \\ & X0 X2 X1) \wedge ((r1\_incsp\_1 X0 X1 X3) \wedge (r1\_incsp\_1 X0 X2 X3)) \Rightarrow (X3 = k1\_projpl\_1 \\ & X0 X1 X2))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_incsp\_1 X0) \Rightarrow ((v2\_incproj X0) \Leftrightarrow (\neg \forall X1.(m1\_subset\_1 \\ & X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u2\_incsp\_1 X0)) \Rightarrow \\ & (r1\_incsp\_1 X0 X1 X2)))) \end{aligned} \tag{3}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge ((v5\_incproj X0) \wedge (l1\_incsp\_1 \\ & X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ & (u1\_incsp\_1 X0)) \Rightarrow (\neg(r1\_incsp\_1 X0 X1 (k1\_projpl\_1 X0 X2 X3)) \wedge \\ & (X1 \neq X3) \wedge ((X2 \neq X3) \wedge (\neg r1\_incsp\_1 X0 X2 (k1\_projpl\_1 X0 X3 X1))))))) \end{aligned}$$