

# t34\_projpl\_1

## (TMNpFYkHgaiRDgT4n27dKerRcJyE3m3nkgj)

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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  $k1\_projpl\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge (l1\_incsp\_1 X0)))))) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ & (u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u2\_incsp\_1 X0)) \Rightarrow \\ & ((X1 \neq X2) \Rightarrow ((r1\_incsp\_1 X0 X1 (k1\_projpl\_1 X0 X1 X2)) \wedge ((r1\_incsp\_1 \\ & X0 X2 (k1\_projpl\_1 X0 X1 X2)) \wedge ((k1\_projpl\_1 X0 X1 X2 = k1\_projpl\_1 \\ & X0 X2 X1) \wedge ((r1\_incsp\_1 X0 X1 X3) \wedge (r1\_incsp\_1 X0 X2 X3)) \Rightarrow (X3 = k1\_projpl\_1 \\ & X0 X1 X2)))))))))) \end{aligned} \tag{1}$$

Assume the following.

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

### Theorem 1

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge ((v5\_incproj X0) \wedge (l1\_incsp\_1 \\ & X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ & (u1\_incsp\_1 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_incsp\_1 X0)) \Rightarrow \\ & (\forall X5.(m1\_subset\_1 X5 (u2\_incsp\_1 X0)) \Rightarrow (\neg (X3 \neq X4) \wedge ((r1\_incsp\_1 \\ & X0 X3 X5) \wedge (r1\_incsp\_1 X0 X4 X5) \wedge ((\neg r1\_incsp\_1 X0 X1 X5) \wedge ((\neg r1\_incsp\_1 \\ & X0 X2 X5) \wedge (k1\_projpl\_1 X0 X1 X3 = k1\_projpl\_1 X0 X2 X4)))))))))) \end{aligned}$$