t30_projpl_1 (TMSM8u8ockjV7DoxV6R7ckaypD5M38DUjcJ)

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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.

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

Assume the following.

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

Theorem 1

$$\forall X0.((v6\_incsp\_1\ X0) \wedge ((v1\_incproj\ X0) \wedge ((v2\_incproj\ X0) \wedge ((v3\_incproj\ X0) \wedge ((v4\_incproj\ X0) \wedge ((v5\_incproj\ X0) \wedge (l1\_incsp\_1\ X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_incsp\_1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_incsp\_1\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_incsp\_1\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u2\_incsp\_1\ X0)) \Rightarrow (((r1\_incsp\_1\ X0\ X2\ X4) \wedge (r1\_incsp\_1\ X0\ X3\ X4)) \Rightarrow ((X2 = X3) \vee ((r1\_incsp\_1\ X0\ X1\ X4) \vee ((k1\_projpl\_1\ X0\ X2\ X1 \neq k1\_projpl\_1\ X0\ X3\ X1) \wedge (k1\_projpl\_1\ X0\ X1\ X2 \neq k1\_projpl\_1\ X0\ X1\ X3)))))))))$$