t1_projred2 (TMY6Fxja3iBZ7F4dN2HEhHrzLrQZQcXimLs)

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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 $v9\_incproj : \iota \Rightarrow o$ be given. Let $l1\_incsp\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u2\_incsp\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_projred2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_incsp\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v6\_incsp\_1\ X0) \wedge ((v1\_incproj\ X0) \wedge ((v2\_incproj\ X0) \wedge ((v3\_incproj\ X0) \wedge ((v4\_incproj\ X0) \wedge (l1\_incsp\_1\ X0))))))\Rightarrow((v5\_incproj\ X0) \Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (u2\_incsp\_1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u2\_incsp\_1\ X0)) \Rightarrow (\exists X3.(m1\_subset\_1\ X3\ (u1\_incsp\_1\ X0)) \wedge ((r1\_incsp\_1\ X0\ X3\ X1) \wedge (r1\_incsp\_1\ X0\ X3\ X2))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v6\_incsp\_1\ X0) \wedge ((v1\_incproj\ X0) \wedge ((v2\_incproj\ X0) \wedge ((v3\_incproj\ X0) \wedge ((v4\_incproj\ X0) \wedge (l1\_incsp\_1\ X0))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u2\_incsp\_1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u2\_incsp\_1\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u2\_incsp\_1\ X0)) \Rightarrow ((r1\_projred2\ X0\ X1\ X2\ X3) \Leftrightarrow (\exists X4.(m1\_subset\_1\ X4\ (u1\_incsp\_1\ X0)) \wedge ((r1\_incsp\_1\ X0\ X4\ X1) \wedge ((r1\_incsp\_1\ X0\ X4\ X2) \wedge (r1\_incsp\_1\ X0\ X4\ X3)))))))) \tag{2}$$

Theorem 1

$$\forall X0.((v6\_incsp\_1\ X0) \wedge ((v1\_incproj\ X0) \wedge ((v2\_incproj\ X0) \wedge ((v3\_incproj\ X0) \wedge ((v4\_incproj\ X0) \wedge ((v5\_incproj\ X0) \wedge ((v9\_incproj\ X0) \wedge (l1\_incsp\_1\ X0))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u2\_incsp\_1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u2\_incsp\_1\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u2\_incsp\_1\ X0)) \Rightarrow ((\neg(X1 \neq X2) \wedge ((X2 \neq X3) \wedge (X3 \neq X1))) \Rightarrow (r1\_projred2\ X0\ X1\ X2\ X3)))))$$