

t9\_projred2  
(TMP4LTQgARV1JmURp1w8DGEz5YNvQKif2q)

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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  $m1\_projred2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_funct\_1 : \iota \Rightarrow \iota$  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  $k1\_projred1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge ((v5\_incproj X0) \wedge ((v9\_incproj \\ & X0) \wedge (l1\_incsp\_1 X0)))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_incsp\_1 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u2\_incsp\_1 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u2\_incsp\_1 X0)) \Rightarrow (\neg(\neg r1\_incsp\_1 X0 X1 X2) \wedge (\neg \\ & r1\_incsp\_1 X0 X1 X3) \wedge (k2\_funct\_1 (k1\_projred1 X0 X2 X3 X1) \neq k1\_projred1 \\ & X0 X3 X2 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v6\_incsp\_1 X0) \wedge ((v1\_incproj X0) \wedge ((v2\_incproj X0) \wedge \\ & ((v3\_incproj X0) \wedge ((v4\_incproj X0) \wedge ((v5\_incproj X0) \wedge ((v9\_incproj \\ & X0) \wedge (l1\_incsp\_1 X0)))))))) \Rightarrow (\forall X1.(m1\_projred2 X1 X0) \Rightarrow \\ & ((v1\_funct\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 ( \\ & u1\_incsp\_1 X0) (u1\_incsp\_1 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(((v6\_incsp\_1 X0)\wedge \\
& ((v1\_incproj X0)\wedge((v2\_incproj X0)\wedge((v3\_incproj X0)\wedge((v4\_incproj \\
& X0)\wedge((v5\_incproj X0)\wedge((v9\_incproj X0)\wedge(l1\_incsp\_1 X0))))))\wedge \\
& ((m1\_subset\_1 X1 (u2\_incsp\_1 X0))\wedge((m1\_subset\_1 X2 (u2\_incsp\_1 \\
& X0))\wedge(m1\_subset\_1 X3 (u1\_incsp\_1 X0))))\Rightarrow((v1\_funct\_1 (k1\_projred1 \\
& X0 X1 X2 X3))\wedge(m1\_subset\_1 (k1\_projred1 X0 X1 X2 X3) (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 (u1\_incsp\_1 X0) (u1\_incsp\_1 X0))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(((v6\_incsp\_1 X0)\wedge((v1\_incproj X0)\wedge((v2\_incproj X0)\wedge \\
& ((v3\_incproj X0)\wedge((v4\_incproj X0)\wedge((v5\_incproj X0)\wedge((v9\_incproj \\
& X0)\wedge(l1\_incsp\_1 X0))))))\Rightarrow(\forall X1.((v1\_funct\_1 X1)\wedge(m1\_subset\_1 \\
& X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_incsp\_1 X0) (u1\_incsp\_1 X0))))\Rightarrow \\
& ((m1\_projred2 X1 X0)\Leftrightarrow(\exists X2.(m1\_subset\_1 X2 (u1\_incsp\_1 \\
& X0))\wedge(\exists X3.(m1\_subset\_1 X3 (u2\_incsp\_1 X0))\wedge(\exists X4. \\
& (m1\_subset\_1 X4 (u2\_incsp\_1 X0))\wedge((\neg r1\_incsp\_1 X0 X2 X3)\wedge((\neg r1\_incsp\_1 \\
& X0 X2 X4)\wedge(X1 = k1\_projred1 X0 X3 X4 X2)))))))))
\end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(((v6\_incsp\_1 X0)\wedge((v1\_incproj X0)\wedge((v2\_incproj X0)\wedge \\
& ((v3\_incproj X0)\wedge((v4\_incproj X0)\wedge((v5\_incproj X0)\wedge((v9\_incproj \\
& X0)\wedge(l1\_incsp\_1 X0))))))\Rightarrow(\forall X1.(m1\_projred2 X1 X0)\Rightarrow \\
& (m1\_projred2 (k2\_funct\_1 X1) X0))
\end{aligned}$$