

# t34\_afproj (TMbfChMYqycKD- ofGWv58jdAqCT8HGx12TGc)

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Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_diraf : \iota \Rightarrow o$  be given. Let  $l1\_analoaf : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_incsp\_1 : \iota \Rightarrow \iota$  be given. Let  $k13\_afproj : \iota \Rightarrow \iota$  be given. Let  $u2\_incsp\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_afproj : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_aff\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\
& \quad (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& \quad (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& \quad (\forall X3.(m1\_subset\_1 X3 (u1\_incsp\_1 (k13\_afproj X0))) \Rightarrow (\forall X4. \\
& \quad (m1\_subset\_1 X4 (u2\_incsp\_1 (k13\_afproj X0))) \Rightarrow (((X3 = k5\_afproj \\
& \quad X0 X1) \wedge ((k4\_tarski X2 np\_1 = X4) \wedge ((v1\_aff\_1 X1 X0) \wedge (v1\_aff\_1 X2 \\
& \quad X0)))) \Rightarrow ((r1\_incsp\_1 (k13\_afproj X0) X3 X4) \Leftrightarrow (r1\_aff\_4 X0 X1 X2)))))) \\
& \hspace{10em} (1)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\
& \quad (\forall X1.(m1\_subset\_1 X1 (u1\_incsp\_1 (k13\_afproj X0))) \Leftrightarrow (\neg \\
& \quad (\neg m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (\forall X2.(m1\_subset\_1 \\
& \quad X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\neg (X1 = k5\_afproj X0 X2) \wedge (v1\_aff\_1 \\
& \quad X2 X0)))))) \\
& \hspace{10em} (2)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\
& \quad (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& \quad (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& \quad (((v1\_aff\_1 X1 X0) \wedge (v1\_aff\_1 X2 X0)) \Rightarrow ((k5\_afproj X0 X1 = k5\_afproj \\
& \quad X0 X2) \Leftrightarrow (r1\_aff\_4 X0 X1 X2)))))) \\
& \hspace{10em} (3)
\end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (u1\_incsp\_1 (k13\_afproj X0))) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u2\_incsp\_1 (k13\_afproj X0))) \Rightarrow (((X3 = k4\_tarski \\ & X1 \text{ np\_1}) \wedge ((v1\_aff\_1 X1 X0) \wedge (r1\_incsp\_1 (k13\_afproj X0) X2 X3))) \Rightarrow \\ & ((m1\_subset\_1 X2 (u1\_struct\_0 X0)) \vee (X2 = k5\_afproj X0 X1)))))) \end{aligned}$$