l64_afproj (TMVUKCRpJBJweT-zMSSoB6CM9d76YYpoBRsg)

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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 $v1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_aff\_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $r1\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_afproj : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $r1\_aff\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_afproj : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (((r1\_aff\_4\ X0\ X1\ X3) \wedge ((r1\_aff\_4\ X0\ X1\ X4) \wedge ((r1\_aff\_4\ X0\ X2\ X3) \wedge ((r1\_aff\_4\ X0\ X2\ X4) \wedge ((v1\_aff\_1\ X1\ X0) \wedge ((v1\_aff\_1\ X2\ X0) \wedge ((v1\_aff\_4\ X3\ X0) \wedge (v1\_aff\_4\ X4\ X0))))))))) \Rightarrow ((r5\_aff\_1\ X0\ X1\ X2) \vee (r1\_aff\_4\ X0\ X3\ X4)))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (((v1\_aff\_1\ X1\ X0) \wedge ((v1\_aff\_4\ X2\ X0) \wedge (r1\_tarski\ X1\ X2))) \Rightarrow (r1\_aff\_4\ X0\ X1\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(((X3 = k4\_tarski\ X1\ np\_\_1)\wedge((v1\_aff\_1\ X1\ X0)\wedge(r1\_incsp\_1\ (k13\_afproj\ X0)\ X2\ X3)))\Rightarrow((m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\vee(X2 = k5\_afproj\ X0\ X1))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\neg(X3 = k4\_tarski\ (k6\_afproj\ X0\ X1)\ np\_\_2)\wedge((v1\_aff\_4\ X1\ X0)\wedge((r1\_incsp\_1\ (k13\_afproj\ X0)\ X2\ X3)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(((X3 = k5\_afproj\ X0\ X1)\wedge((X4 = k4\_tarski\ (k6\_afproj\ X0\ X2)\ np\_\_2)\wedge((v1\_aff\_1\ X1\ X0)\wedge(v1\_aff\_4\ X2\ X0))))\Rightarrow((r1\_incsp\_1\ (k13\_afproj\ X0)\ X3\ X4)\Leftrightarrow(r1\_aff\_4\ X0\ X1\ X2))))))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Leftrightarrow(\neg\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((\neg(X1 = k4\_tarski\ X2\ np\_\_1)\wedge(v1\_aff\_1\ X2\ X0))\wedge(\neg(X1 = k4\_tarski\ (k6\_afproj\ X0\ X2)\ np\_\_2)\wedge(v1\_aff\_4\ X2\ X0))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_incsp\_1\ (k13\_afproj\ X0)))\Leftrightarrow(\neg(\neg m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\neg(X1 = k5\_afproj\ X0\ X2)\wedge(v1\_aff\_1\ X2\ X0))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (((v1\_aff\_1\ X1\ X0)\wedge(v1\_aff\_1\ X2\ X0))\Rightarrow((k5\_afproj\ X0\ X1 = k5\_afproj\ X0\ X2)\Leftrightarrow(r5\_aff\_1\ X0\ X1\ X2)))))) \tag{8}$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(\forall X9.(m1\_subset\_1\ X9\ (u2\_incsp\_1\ (k13\_afproj\ X0)))\Rightarrow(((v1\_aff\_1\ X1\ X0)\wedge((v1\_aff\_1\ X2\ X0)\wedge((v1\_aff\_4\ X3\ X0)\wedge((r1\_tarski\ X1\ X3)\wedge((r1\_tarski\ X2\ X3)\wedge((X7 = k4\_tarski\ X1\ np\_\_1)\wedge((X8 = k4\_tarski\ X2\ np\_\_1)\wedge((r1\_incsp\_1\ (k13\_afproj\ X0)\ X5\ X7)\wedge((r1\_incsp\_1\ (k13\_afproj\ X0)\ X6\ X8)\wedge((r1\_incsp\_1\ (k13\_afproj\ X0)\ X5\ X9)\wedge((r1\_incsp\_1\ (k13\_afproj\ X0)\ X6\ X9)\wedge((X9 = k4\_tarski\ (k6\_afproj\ X0\ X4)\ np\_\_2)\wedge(v1\_aff\_4\ X4\ X0))))))))))))\Rightarrow((X5 = X6)\vee((r1\_aff\_4\ X0\ X4\ X3)\wedge(r1\_aff\_4\ X0\ X3\ X4))))))))))))$$