l17_translac (TMW5JU5vZb5u4X7hwK4ZJFtJbg5c8KmgJrS)

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Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_diraf : \iota \Rightarrow o$ be given. Let $v2\_diraf : \iota \Rightarrow o$ be given. Let $l1\_analoaf : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (((r1\_aff\_1\ X0\ X1\ X2\ X3) \wedge (r2\_analoaf\ X0\ X1\ X2\ X3\ X4)) \Rightarrow ((X1 = X2) \vee (r1\_aff\_1\ X0\ X1\ X2\ X4)))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_aff\_1\ X0\ X1\ X2\ X3) \Rightarrow ((r1\_aff\_1\ X0\ X1\ X3\ X2) \wedge ((r1\_aff\_1\ X0\ X2\ X1\ X3) \wedge ((r1\_aff\_1\ X0\ X2\ X3\ X1) \wedge ((r1\_aff\_1\ X0\ X3\ X1\ X2) \wedge (r1\_aff\_1\ X0\ X3\ X2\ X1)))))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(X1 \neq X2) \wedge ((\neg(\neg(r2\_analoaf\ X0\ X1\ X2\ X3\ X4) \wedge (r2\_analoaf\ X0\ X1\ X2\ X5\ X6)) \wedge ((\neg(r2\_analoaf\ X0\ X1\ X2\ X3\ X4) \wedge (r2\_analoaf\ X0\ X5\ X6\ X1\ X2)) \wedge ((\neg(r2\_analoaf\ X0\ X3\ X4\ X1\ X2) \wedge (r2\_analoaf\ X0\ X5\ X6\ X1\ X2)) \wedge (\neg(r2\_analoaf\ X0\ X3\ X4\ X1\ X2) \wedge (r2\_analoaf\ X0\ X1\ X2\ X5\ X6))))) \wedge (\neg r2\_analoaf\ X0\ X3\ X4\ X5\ X6)))))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r2\_analoaf\ X0\ X1\ X2\ X3\ X4)\Rightarrow((r2\_analoaf\ X0\ X1\ X2\ X4\ X3)\wedge((r2\_analoaf\ X0\ X2\ X1\ X3\ X4)\wedge((r2\_analoaf\ X0\ X2\ X1\ X4\ X3)\wedge((r2\_analoaf\ X0\ X3\ X4\ X1\ X2)\wedge((r2\_analoaf\ X0\ X3\ X4\ X2\ X1)\wedge((r2\_analoaf\ X0\ X4\ X3\ X1\ X2)\wedge(r2\_analoaf\ X0\ X4\ X3\ X2\ X1)))))))))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_aff\_1\ X0\ X1\ X2\ X3)\Leftrightarrow(r2\_analoaf\ X0\ X1\ X2\ X1\ X3))))) \tag{5}$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge(l1\_analoaf\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(((r1\_aff\_1\ X0\ X1\ X2\ X3)\wedge((r2\_analoaf\ X0\ X1\ X2\ X4\ X5)\wedge((r2\_analoaf\ X0\ X1\ X4\ X2\ X5)\wedge(r2\_analoaf\ X0\ X4\ X5\ X3\ X6))))\Rightarrow((X1=X2)\vee((r1\_aff\_1\ X0\ X1\ X2\ X4)\vee((X4\neq X5)\wedge(r1\_aff\_1\ X0\ X1\ X2\ X6))))))))))$$