t2_papdesaf (TMMpHz-MaemN4ia2UA81mnv38zPmhxfR9XCn)

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Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_analoaf : \iota \Rightarrow o$ 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 $k2\_diraf : \iota \Rightarrow \iota$ be given. Let $r3\_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_analoaf : \iota \Rightarrow o$ be given. Let $v1\_diraf : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $g1\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_analoaf : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v2\_analoaf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l1\_analoaf\ X1)) \Rightarrow ((X1 = k2\_diraf\ X0) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X9.(m1\_subset\_1\ X9\ (u1\_struct\_0\ X1)) \Rightarrow (((X2 = X6) \wedge ((X3 = X7) \wedge ((X4 = X8) \wedge (X5 = X9)))) \Rightarrow ((r2\_analoaf\ X1\ X6\ X7\ X8\ X9) \Leftrightarrow (r2\_diraf\ X0\ X2\ X3\ X4\ X5)))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v2\_analoaf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow ((\neg v7\_struct\_0\ (k2\_diraf\ X0)) \wedge ((v1\_analoaf\ (k2\_diraf\ X0)) \wedge (v1\_diraf\ (k2\_diraf\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_analoaf\ X0)) \Rightarrow ((\neg v2\_struct\_0\ (k2\_diraf\ X0)) \wedge (v1\_analoaf\ (k2\_diraf\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_analoaf\ X0) \Rightarrow (l1\_struct\_0\ X0) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_analoaf\ X0))\Rightarrow((v1\_analoaf\ (k2\_diraf\ X0))\wedge(l1\_analoaf\ (k2\_diraf\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_analoaf\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r3\_diraf\ X0\ X1\ X2\ X3)\Leftrightarrow(r2\_diraf\ X0\ X1\ X2\ X1\ X3))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_aff\_1\ X0\ X1\ X2\ X3)\Leftrightarrow(r2\_analoaf\ X0\ X1\ X2\ X1\ X3))))) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0)\Rightarrow((v2\_struct\_0\ X0)\Rightarrow(v7\_struct\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_analoaf\ X0)\Rightarrow((v1\_analoaf\ X0)\Rightarrow(X0 = g1\_analoaf\ (u1\_struct\_0\ X0)\ (u1\_analoaf\ X0))) \tag{9}$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v2\_analoaf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k2\_diraf\ X0)))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ (k2\_diraf\ X0)))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ (k2\_diraf\ X0)))\Rightarrow(((X1 = X4)\wedge((X2 = X5)\wedge(X3 = X6)))\Rightarrow((r3\_diraf\ X0\ X1\ X2\ X3)\Leftrightarrow(r1\_aff\_1\ (k2\_diraf\ X0)\ X4\ X5\ X6)))))))))$$