t4_pralg_1 (TMHuqbZ4wywwp9TWM7kbDLVj6w5Q3Wgv59P)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_unialg\_1 : \iota \Rightarrow o$ be given. Let $v3\_unialg\_1 : \iota \Rightarrow o$ be given. Let $v4\_unialg\_1 : \iota \Rightarrow o$ be given. Let $l1\_unialg\_1 : \iota \Rightarrow o$ be given. Let $r1\_unialg\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k6\_pralg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_pralg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_2 : \iota \Rightarrow \iota$ be given. Let $g1\_unialg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $u1\_unialg\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_unialg\_1 : \iota \Rightarrow o$ be given. Let $k4\_pralg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge ((v2\_unialg\_1\ X0) \wedge ((v3\_unialg\_1\ X0) \wedge ((v4\_unialg\_1\ X0) \wedge (l1\_unialg\_1\ X0))))) \wedge ((\neg v2\_struct\_0\ X1) \wedge ((v2\_unialg\_1\ X1) \wedge ((v3\_unialg\_1\ X1) \wedge ((v4\_unialg\_1\ X1) \wedge (l1\_unialg\_1\ X1)))))) \Rightarrow ((r1\_unialg\_2\ X0\ X1) \Rightarrow (r1\_unialg\_2\ X1\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ (k4\_partfun1\ (k3\_finseq\_2\ X0)\ X0)) \Rightarrow (\forall X2.\forall X3.(g1\_unialg\_1\ X0\ X1 = g1\_unialg\_1\ X2\ X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_unialg\_1\ X0)\Rightarrow(m2\_finseq\_1\ (u1\_unialg\_1\ X0)\ (k4\_partfun1\ (k3\_finseq\_2\ (u1\_struct\_0\ X0))\ (u1\_struct\_0\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_unialg\_1\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(\neg v1\_xboole\_0\ X1))\Rightarrow((v1\_funct\_1\ (k6\_pralg\_1\ X0\ X1))\wedge((v1\_funct\_2\ (k6\_pralg\_1\ X0\ X1)\ (k2\_zfmisc\_1\ X0\ X1)\ (k2\_zfmisc\_1\ X1\ X0))\wedge(m1\_subset\_1\ (k6\_pralg\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)\ (k2\_zfmisc\_1\ X1\ X0)))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_unialg\_1\ X0)\wedge((v3\_unialg\_1\ X0)\wedge((v4\_unialg\_1\ X0)\wedge(l1\_unialg\_1\ X0)))))\wedge((\neg v2\_struct\_0\ X1)\wedge((v2\_unialg\_1\ X1)\wedge((v3\_unialg\_1\ X1)\wedge((v4\_unialg\_1\ X1)\wedge(l1\_unialg\_1\ X1))))))\Rightarrow((\neg v2\_struct\_0\ (k5\_pralg\_1\ X0\ X1))\wedge((v1\_unialg\_1\ (k5\_pralg\_1\ X0\ X1))\wedge((v2\_unialg\_1\ (k5\_pralg\_1\ X0\ X1))\wedge((v3\_unialg\_1\ (k5\_pralg\_1\ X0\ X1))\wedge((v4\_unialg\_1\ (k5\_pralg\_1\ X0\ X1))\wedge(l1\_unialg\_1\ (k5\_pralg\_1\ X0\ X1))))))) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_unialg\_1\ X0)\wedge((v3\_unialg\_1\ X0)\wedge((v4\_unialg\_1\ X0)\wedge(l1\_unialg\_1\ X0)))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_unialg\_1\ X1)\wedge((v3\_unialg\_1\ X1)\wedge((v4\_unialg\_1\ X1)\wedge(l1\_unialg\_1\ X1)))))\Rightarrow((r1\_unialg\_2\ X0\ X1)\Rightarrow(k5\_pralg\_1\ X0\ X1 = g1\_unialg\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (k4\_pralg\_1\ X0\ X1)))) \tag{9}$$

Assume the following.

$$\forall X0.(l1\_unialg\_1\ X0)\Rightarrow((v1\_unialg\_1\ X0)\Rightarrow(X0 = g1\_unialg\_1\ (u1\_struct\_0\ X0)\ (u1\_unialg\_1\ X0))) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_unialg\_1\ X0)\wedge((v3\_unialg\_1\ X0)\wedge((v4\_unialg\_1\ X0)\wedge(l1\_unialg\_1\ X0)))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_unialg\_1\ X1)\wedge((v3\_unialg\_1\ X1)\wedge((v4\_unialg\_1\ X1)\wedge(l1\_unialg\_1\ X1)))))\Rightarrow((r1\_unialg\_2\ X0\ X1)\Rightarrow((v1\_funct\_1\ (k6\_pralg\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))\wedge((v1\_funct\_2\ (k6\_pralg\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ (k5\_pralg\_1\ X0\ X1))\ (u1\_struct\_0\ (k5\_pralg\_1\ X1\ X0)))\wedge(m1\_subset\_1\ (k6\_pralg\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k5\_pralg\_1\ X0\ X1))\ (u1\_struct\_0\ (k5\_pralg\_1\ X1\ X0))))))))))$$