t41_cc0sp2 (TMZQLWaKnpoVMc3Vu5Tr7djVeCNcpjs1hyZ)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $m1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_cc0sp2 : \iota \Rightarrow \iota$ be given. Let $k10\_csspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_cfuncdom : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_csspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v2\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_clvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_clvect\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v6\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_clvect\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge (l1\_clvect\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((v6\_clvect\_1\ X1\ X0) \Rightarrow ((v1\_xboole\_0\ X1) \vee (m1\_clvect\_1\ (g1\_clvect\_1\ X1\ (k10\_csspace\ X0\ X1)\ (k1\_c0sp1\ X0\ X1)\ (k9\_csspace\ X0\ X1))\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow ((\neg v2\_struct\_0\ (k6\_cfuncdom\ X0)) \wedge ((v13\_algstr\_0\ (k6\_cfuncdom\ X0)) \wedge ((v2\_rlvect\_1\ (k6\_cfuncdom\ X0)) \wedge ((v3\_rlvect\_1\ (k6\_cfuncdom\ X0)) \wedge ((v4\_rlvect\_1\ (k6\_cfuncdom\ X0)) \wedge ((v1\_clvect\_1\ (k6\_cfuncdom\ X0)) \wedge ((v2\_clvect\_1\ (k6\_cfuncdom\ X0)) \wedge ((v3\_clvect\_1\ (k6\_cfuncdom\ X0)) \wedge ((v4\_clvect\_1\ (k6\_cfuncdom\ X0)) \wedge (v5\_clvect\_1\ (k6\_cfuncdom\ X0))))))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow((\neg v1\_xboole\_0\ (k6\_cc0sp2\ X0))\wedge(v6\_clvect\_1\ (k6\_cc0sp2\ X0)\ (k6\_cfuncdom\ (u1\_struct\_0\ X0)))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow((\neg v2\_struct\_0\ (k6\_cfuncdom\ X0))\wedge((v1\_clvect\_1\ (k6\_cfuncdom\ X0))\wedge(l1\_clvect\_1\ (k6\_cfuncdom\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow((\neg v1\_xboole\_0\ (k6\_cc0sp2\ X0))\wedge(m1\_subset\_1\ (k6\_cc0sp2\ X0)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k6\_cfuncdom\ (u1\_struct\_0\ X0))))))) \tag{7}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(m1\_clvect\_1\ (g1\_clvect\_1\ (k6\_cc0sp2\ X0)\ (k10\_csspace\ (k6\_cfuncdom\ (u1\_struct\_0\ X0))\ (k6\_cc0sp2\ X0))\ (k1\_c0sp1\ (k6\_cfuncdom\ (u1\_struct\_0\ X0))\ (k6\_cc0sp2\ X0))\ (k9\_csspace\ (k6\_cfuncdom\ (u1\_struct\_0\ X0))\ (k6\_cc0sp2\ X0)))\ (k6\_cfuncdom\ (u1\_struct\_0\ X0)))$$