t41_clopban3 (TMMUBkt5RMgagFcB99RKr5bSx6s1ew3ZhBx)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ 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 $v3\_normsp\_0 : \iota \Rightarrow o$ be given. Let $v4\_normsp\_0 : \iota \Rightarrow o$ 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 $v8\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v1\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v3\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v2\_cfuncdom : \iota \Rightarrow o$ be given. Let $v5\_clopban2 : \iota \Rightarrow o$ be given. Let $l1\_clopban2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k1\_normsp\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_clopban3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_clopban3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_clopban3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l4\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l4\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l1\_cfuncdom : \iota \Rightarrow o$ be given. Let $l2\_clvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_clvect\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v3\_normsp\_0\ X0) \wedge ((v4\_normsp\_0\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge ((v8\_clvect\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v1\_vectsp\_1\ X0) \wedge ((v3\_vectsp\_1\ X0) \wedge ((v2\_cfuncdom\ X0) \wedge ((v5\_clopban2\ X0) \wedge (l1\_clopban2\ X0))))))))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow ((\neg r1\_xxreal\_0\ np\_\_1\ (k1\_normsp\_0\ X0\ X1)) \Rightarrow ((v1\_clopban3\ (k5\_clopban3\ X0\ X1)\ X0) \wedge (v2\_clopban3\ (k5\_clopban3\ X0\ X1)\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0) \Rightarrow ((l2\_algstr\_0\ X0) \wedge (l5\_algstr\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(l5\_algstr\_0\ X0) \Rightarrow ((l4\_algstr\_0\ X0) \wedge (l4\_struct\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(l4\_algstr\_0\ X0) \Rightarrow ((l3\_struct\_0\ X0) \wedge (l3\_algstr\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_clopban2\ X0) \Rightarrow ((l1\_cfuncdom\ X0) \wedge (l2\_clvect\_1\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_cfuncdom\ X0) \Rightarrow ((l6\_algstr\_0\ X0) \wedge (l1\_clvect\_1\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l3\_struct\_0\ X0) \Rightarrow (m1\_subset\_1\ (k5\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l2\_algstr\_0\ X0) \wedge ((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)))) \Rightarrow (m1\_subset\_1\ (k5\_algstr\_0\ X0\ X1\ X2)\ (u1\_struct\_0\ X0)) \tag{8}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v3\_normsp\_0\ X0) \wedge ((v4\_normsp\_0\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge ((v8\_clvect\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v1\_vectsp\_1\ X0) \wedge ((v3\_vectsp\_1\ X0) \wedge ((v2\_cfuncdom\ X0) \wedge ((v5\_clopban2\ X0) \wedge (l1\_clopban2\ X0))))))))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow ((\neg r1\_xxreal\_0\ np\_\_1\ (k1\_normsp\_0\ X0\ (k5\_algstr\_0\ X0\ (k5\_struct\_0\ X0)\ X1))) \Rightarrow ((v1\_clopban3\ (k5\_clopban3\ X0\ (k5\_algstr\_0\ X0\ (k5\_struct\_0\ X0)\ X1))\ X0) \wedge (v2\_clopban3\ (k5\_clopban3\ X0\ (k5\_algstr\_0\ X0\ (k5\_struct\_0\ X0)\ X1))\ X0))))$$