t69_clvect_1 (TMcNTHKt97hFT8D3fycH7CvAuLgfy5fc6pA)

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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 $v2\_clvect\_1 : \iota \Rightarrow o$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $m1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $r1\_struct\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k6\_complex1 : \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge (l1\_clvect\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(v1\_xcmplx\_0\ X2) \Rightarrow (\forall X3.(m1\_clvect\_1\ X3\ X0) \Rightarrow ((r1\_struct\_0\ X3\ X1) \Rightarrow (r1\_struct\_0\ X3\ (k1\_clvect\_1\ X0\ X1\ X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge (l1\_clvect\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_clvect\_1\ X2\ X0) \Rightarrow ((r1\_struct\_0\ X2\ X1) \Leftrightarrow (k5\_clvect\_1\ X0\ X1\ X2 = u1\_struct\_0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k5\_xcmplx\_0\ (k5\_xcmplx\_0\ X0) = X0) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (v1\_xcmplx\_0\ (k5\_xcmplx\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_clvect\_1\ X0))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(v1\_xcmplx\_0\ X2)))\Rightarrow(m1\_subset\_1\ (k1\_clvect\_1\ X0\ X1\ X2)\ (u1\_struct\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow((X0\neq k6\_numbers)\Rightarrow((X1 = k5\_xcmplx\_0\ X0)\Leftrightarrow(k3\_xcmplx\_0\ X0\ X1 = np\_\_1)))\wedge((X0 = k6\_numbers)\Rightarrow((X1 = k5\_xcmplx\_0\ X0)\Leftrightarrow(X1 = k6\_numbers)))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_clvect\_1\ X0))\Rightarrow((v5\_clvect\_1\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(k1\_clvect\_1\ X0\ X1\ k6\_complex1 = X1))) \tag{7}$$

Assume the following.

$$k6\_complex1 = np\_\_1 \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_clvect\_1\ X0))\Rightarrow((v4\_clvect\_1\ X0)\Leftrightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(\forall X2.(v1\_xcmplx\_0\ X2)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(k1\_clvect\_1\ X0\ X3\ (k3\_xcmplx\_0\ X1\ X2) = k1\_clvect\_1\ X0\ (k1\_clvect\_1\ X0\ X3\ X2)\ X1))))) \tag{9}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v2\_clvect\_1\ X0)\wedge((v3\_clvect\_1\ X0)\wedge((v4\_clvect\_1\ X0)\wedge((v5\_clvect\_1\ X0)\wedge(l1\_clvect\_1\ X0))))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(v1\_xcmplx\_0\ X2)\Rightarrow(\forall X3.(m1\_clvect\_1\ X3\ X0)\Rightarrow((k5\_clvect\_1\ X0\ (k1\_clvect\_1\ X0\ X1\ X2)\ X3 = u1\_struct\_0\ X3)\Rightarrow((X2 = k6\_numbers)\vee(r1\_struct\_0\ X3\ X1))))))$$