

t18\_clvect\_1 (TMVr-  
FKJndH5xPwixVhqF9qq7PLKtnG7xD7w)

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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  $k4\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_clvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k8\_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_complex1 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_2 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (v13\_algstr\_0 X0) \wedge (v2\_rlvect\_1 X0) \wedge (v3\_rlvect\_1 X0) \wedge (v4\_rlvect\_1 X0) \wedge (v2\_clvect\_1 X0) \wedge \\ & ((v3\_clvect\_1 X0) \wedge (v4\_clvect\_1 X0) \wedge (v5\_clvect\_1 X0) \wedge (l1\_clvect\_1 X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\ & (\forall X2. (v1\_xcmplx\_0 X2) \Rightarrow (k1\_clvect\_1 X0 (k4\_algstr\_0 X0 X1) X2 = k1\_clvect\_1 X0 X1 (k4\_xcmplx\_0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (v13\_algstr\_0 X0) \wedge (v2\_rlvect\_1 X0) \wedge (v3\_rlvect\_1 X0) \wedge (v4\_rlvect\_1 X0) \wedge (v2\_clvect\_1 X0) \wedge \\ & ((v3\_clvect\_1 X0) \wedge (v4\_clvect\_1 X0) \wedge (v5\_clvect\_1 X0) \wedge (l1\_clvect\_1 X0)))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\ & (k4\_rlvect\_1 X0 (k2\_finseq\_4 (u1\_struct\_0 X0) X1 X1) = k1\_clvect\_1 X0 X1 (k8\_complex1 k6\_complex1 k6\_complex1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$k2\_xcmplx\_0 \ np_{-1} \ np_{-1} = np_{-2} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 \ X0 \ k2\_numbers)\wedge(m1\_subset\_1 \ X1 \ k2\_numbers))\Rightarrow(k8\_complex1 \ X0 \ X1 = k2\_xcmplx\_0 \ X0 \ X1) \quad (5)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k2\_numbers)\Rightarrow(k10\_complex1 \ X0 = k4\_xcmplx\_0 \ X0) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_clvect\_1 \ X0)\Rightarrow(l2\_algstr\_0 \ X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 \ X0 \ k2\_numbers)\wedge(m1\_subset\_1 \ X1 \ k2\_numbers))\Rightarrow(m1\_subset\_1 \ (k8\_complex1 \ X0 \ X1) \ k2\_numbers) \quad (8)$$

Assume the following.

$$m1\_subset\_1 \ k6\_complex1 \ k2\_numbers \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((l2\_algstr\_0 \ X0)\wedge(m1\_subset\_1 \ X1 \ (u1\_struct\_0 \ X0)))\Rightarrow(m1\_subset\_1 \ (k4\_algstr\_0 \ X0 \ X1) \ (u1\_struct\_0 \ X0)) \quad (10)$$

Assume the following.

$$k6\_complex1 = np_{-1} \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers)\Rightarrow(v1\_xcmplx\_0 \ X0) \quad (12)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 \ X0)\wedge((v13\_algstr\_0 \ X0)\wedge((v2\_rlvect\_1 \ X0)\wedge((v3\_rlvect\_1 \ X0)\wedge((v4\_rlvect\_1 \ X0)\wedge((v2\_clvect\_1 \ X0)\wedge \\ & ((v3\_clvect\_1 \ X0)\wedge((v4\_clvect\_1 \ X0)\wedge((v5\_clvect\_1 \ X0)\wedge(l1\_clvect\_1 \ X0))))))))))\Rightarrow(\forall X1.(m1\_subset\_1 \ X1 \ (u1\_struct\_0 \ X0))\Rightarrow \\ & (k4\_rlvect\_1 \ X0 \ (k2\_finseq\_4 \ (u1\_struct\_0 \ X0) \ (k4\_algstr\_0 \ X0 \ X1)) = k1\_clvect\_1 \ X0 \ X1 \ (k10\_complex1 \ (k8\_complex1 \ k6\_complex1 \ k6\_complex1)))) \end{aligned}$$