t69_rlvect_2 (TMQ8Z8tNBtvbjrKZZRMiT8c7gVUwNUC8AUb)

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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 $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v5\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v8\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v10\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v11\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k6\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_algstr\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l2\_algstr\_0\ X0)) \Rightarrow (k4\_rlvect\_1\ X0\ (k6\_finseq\_1\ (u1\_struct\_0\ X0)) = k4\_struct\_0\ X0) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v4\_vectsp\_1\ X0) \wedge ((v5\_vectsp\_1\ X0) \wedge (l6\_algstr\_0\ X0)))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.((\neg v2\_struct\_0\ X2) \wedge ((v13\_algstr\_0\ X2) \wedge ((v3\_rlvect\_1\ X2) \wedge ((v4\_rlvect\_1\ X2) \wedge ((v8\_vectsp\_1\ X2\ X0) \wedge ((v9\_vectsp\_1\ X2\ X0) \wedge ((v10\_vectsp\_1\ X2\ X0) \wedge ((v11\_vectsp\_1\ X2\ X0) \wedge (l1\_vectsp\_1\ X2\ X0)))))))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X2)) \Rightarrow ((k4\_vectsp\_1\ X0\ X2\ (k4\_struct\_0\ X0)\ X3 = k4\_struct\_0\ X2) \wedge ((k4\_vectsp\_1\ X0\ X2\ (k4\_algstr\_0\ X0\ (k5\_struct\_0\ X0))\ X3 = k4\_algstr\_0\ X2\ X3) \wedge (k4\_vectsp\_1\ X0\ X2\ X1\ (k4\_struct\_0\ X2) = k4\_struct\_0\ X2))))))) \tag{2}$$

Assume the following.

$$\forall X0.k2\_pre\_poly\ X0 = k6\_finseq\_1\ X0 \tag{3}$$

Assume the following.

$$\forall X0.\exists X1.m1\_subset\_1\ X1\ X0 \tag{4}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0)\Rightarrow((l2\_algstr\_0\ X0)\wedge(l5\_algstr\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(l2\_struct\_0\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{6}$$

Assume the following.

$$\forall X0.(l2\_algstr\_0\ X0)\Rightarrow((l2\_struct\_0\ X0)\wedge(l1\_algstr\_0\ X0)) \tag{7}$$

Assume the following.

$$\begin{gathered}\forall X0.(l1\_struct\_0\ X0)\Rightarrow(\forall X1.(l1\_vectsp\_1\ X1\ X0)\Rightarrow\\ (l2\_algstr\_0\ X1))\end{gathered} \tag{8}$$

Theorem 1

$$\begin{gathered}\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(\\ (v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0)))))))))\Rightarrow\\ (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.((\\ \neg v2\_struct\_0\ X2)\wedge((v13\_algstr\_0\ X2)\wedge((v2\_rlvect\_1\ X2)\wedge((v3\_rlvect\_1\\ X2)\wedge((v4\_rlvect\_1\ X2)\wedge((v8\_vectsp\_1\ X2\ X0)\wedge((v9\_vectsp\_1\ X2\\ X0)\wedge((v10\_vectsp\_1\ X2\ X0)\wedge((v11\_vectsp\_1\ X2\ X0)\wedge(l1\_vectsp\_1\\ X2\ X0)))))))))\Rightarrow(k4\_vectsp\_1\ X0\ X2\ X1\ (k4\_rlvect\_1\ X2\ (k2\_pre\_poly\\ (u1\_struct\_0\ X2)))=k4\_struct\_0\ X2)))\end{gathered}$$