

t45_rlvect_1

(TMbDy9Nq4cMQb64aXJc6vcVm qG13ZT2GXdA)

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Let $v2_struct.0 : \iota \Rightarrow o$ be given. Let $v13_algstr.0 : \iota \Rightarrow o$ be given. Let $v3_rlvect.1 : \iota \Rightarrow o$ be given. Let $v4_rlvect.1 : \iota \Rightarrow o$ be given. Let $l2_algstr.0 : \iota \Rightarrow o$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $k4_rlvect.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq.4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_algstr.0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_finseq.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_finseq.1 : \iota \Rightarrow \iota$ be given. Let $k5_finseq.1 : \iota \Rightarrow \iota$ be given. Let $k7_finseq.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $k10_finseq.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct.0 : \iota \Rightarrow o$ be given. Let $l1_algstr.0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct.0 X0) \wedge ((v3_rlvect.1 X0) \wedge ((v4_rlvect.1 \\ X0) \wedge (l2_algstr.0 X0)))) \Rightarrow (\forall X1.(m2_finseq.1 X1 (u1_struct.0 \\ X0)) \Rightarrow (\forall X2.(m2_finseq.1 X2 (u1_struct.0 X0)) \Rightarrow (k4_rlvect.1 \\ X0 (k8_finseq.1 (u1_struct.0 X0) X1 X2) = k1_algstr.0 X0 (k4_rlvect.1 \\ X0 X1) (k4_rlvect.1 X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq.1 X1 X0) \Leftrightarrow (m1_finseq.1 X1 X0) \tag{2}$$

Assume the following.

$$\forall X0. k9_finseq.1 X0 = k5_finseq.1 X0 \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_finseq.1 X1 X0) \wedge (m1_finseq.1 \\ X2 X0)) \Rightarrow (k8_finseq.1 X0 X1 X2 = k7_finseq.1 X1 X2) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((\neg v1_xboole.0 X0) \wedge ((m1_subset.1 \\ X1 X0) \wedge (m1_subset.1 X2 X0))) \Rightarrow (k2_finseq.4 X0 X1 X2 = k10_finseq.1 \\ X1 X2) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge(l2_algstr_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(k4_rlvect_1 X0 (k12_finseq_1 (u1_struct_0 X0) X1) = X1)) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_struct_0 X0))\Rightarrow(\neg v1_xboole_0 (u1_struct_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0)\Rightarrow((l2_struct_0 X0)\wedge(l1_algstr_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l1_algstr_0 X0)\Rightarrow(l1_struct_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k10_finseq_1 X0 X1 = k7_finseq_1 (k9_finseq_1 X0) (k9_finseq_1 X1) \quad (12)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v13_algstr_0 X0)\wedge((v3_rlvect_1 X0)\wedge((v4_rlvect_1 X0)\wedge(l2_algstr_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(k4_rlvect_1 X0 (k2_finseq_4 (u1_struct_0 X0) X1 X2) = k1_algstr_0 X0 X1 X2)))$$