

t6_clvect_1

(TMYU3Y5FRZpkVkHzPg2tfYXvSziZZnKavM4Z)

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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 $k1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k10_complex1 : \iota \Rightarrow \iota$ be given. Let $k6_complex1 : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k2_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v2_clvect_1 X0) \wedge \\ & ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge ((v5_clvect_1 X0) \wedge (l1_clvect_1 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (k4_algstr_0 X0 X1 = k1_clvect_1 X0 X1 (k10_complex1 k6_complex1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 X0 (k4_xcmplx_0 np_1) = k4_xcmplx_0 X0) \quad (2)$$

Assume the following.

$$k3_xcmplx_0 k1_xcmplx_0 k1_xcmplx_0 = k4_xcmplx_0 np_1 \quad (3)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k2_numbers) \Rightarrow (k10_complex1 X0 = k4_xcmplx_0 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (v1_xcmplx_0 (k3_xcmplx_0 X0 X1)) \quad (5)$$

Assume the following.

$$v1_xcmplx_0 \ k1_xcmplx_0 \tag{6}$$

Assume the following.

$$m1_subset_1 \ k6_complex1 \ k2_numbers \tag{7}$$

Assume the following.

$$k6_complex1 = np_1 \tag{8}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 \ X0) \wedge (l1_clvect_1 \ X0)) \Rightarrow ((v4_clvect_1 \\ X0) \Leftrightarrow (\forall X1.(v1_xcmplx_0 \ X1) \Rightarrow (\forall X2.(v1_xcmplx_0 \ X2) \Rightarrow \\ (\forall X3.(m1_subset_1 \ X3 \ (u1_struct_0 \ X0)) \Rightarrow (k1_clvect_1 \ X0 \\ X3 \ (k3_xcmplx_0 \ X1 \ X2) = k1_clvect_1 \ X0 \ (k1_clvect_1 \ X0 \ X3 \ X2) \ X1)))))) \end{aligned} \tag{9}$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 \ X0) \wedge ((v13_algstr_0 \ X0) \wedge ((v2_rlvect_1 \\ X0) \wedge ((v3_rlvect_1 \ X0) \wedge ((v4_rlvect_1 \ X0) \wedge ((v2_clvect_1 \ X0) \wedge \\ ((v3_clvect_1 \ X0) \wedge ((v4_clvect_1 \ X0) \wedge ((v5_clvect_1 \ X0) \wedge (l1_clvect_1 \\ X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \Rightarrow \\ (\forall X2.(v1_xcmplx_0 \ X2) \Rightarrow (k1_clvect_1 \ X0 \ (k4_algstr_0 \ X0 \\ X1) \ X2 = k1_clvect_1 \ X0 \ X1 \ (k4_xcmplx_0 \ X2)))) \end{aligned}$$