

t22_csspace
(TMUKzbyzqQP76bP3BbqN9iUVdDMz9fLKYfz)

October 27, 2020

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 $v2_csspace : \iota \Rightarrow o$ be given. Let $l1_csspace : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k12_csspace : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ be given. Let $k1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_complex1 : \iota \Rightarrow \iota$ be given. Let $k6_complex1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k15_complex1 : \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ 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.

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow (k15_complex1 (k4_xcmplx_0 X0) = k10_complex1 (k15_complex1 X0)) \quad (2)$$

Assume the following.

$$k15_complex1 k6_complex1 = k6_complex1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 \\ & X1) \wedge ((v2_clvect_1 X1) \wedge ((v3_clvect_1 X1) \wedge ((v4_clvect_1 X1) \wedge \\ & ((v5_clvect_1 X1) \wedge ((v2_csspace X1) \wedge (l1_csspace X1)))))))))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X1) \Rightarrow (k12_csspace X1 (k1_clvect_1 X1 X2 X0) X3 = \\ & k12_csspace X1 X2 (k1_clvect_1 X1 X3 (k15_complex X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (k10_complex X0 = k4_xcmplx_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.(l1_csspace X0) \Rightarrow (l1_clvect_1 X0) \quad (6)$$

Assume the following.

$$m1_subset_1 k6_complex k2_numbers \quad (7)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (v1_xcmplx_0 (k4_xcmplx_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v2_clvect_1 X0) \wedge \\ & ((v3_clvect_1 X0) \wedge ((v4_clvect_1 X0) \wedge ((v5_clvect_1 X0) \wedge ((v2_csspace \\ & X0) \wedge (l1_csspace X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (\\ & u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow \\ & (k12_csspace X0 (k4_algstr_0 X0 X1) X2 = k12_csspace X0 X1 (k4_algstr_0 \\ & X0 X2)))) \end{aligned}$$