

l55_cc0sp2

(TMPXt976YRaUo1fdZdJPsaN45f184bndpyu)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_cfunctor : \iota \Rightarrow \iota$ be given. Let $k6_cc0sp2 : \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v1_cfunctor : \iota \Rightarrow o$ be given. Let $v2_cfunctor : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_cfunctor : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (v1_xcmplx_0 X1) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (u1_struct_0 (k8_cfunctor (u1_struct_0 X0)))) \Rightarrow ((X2 \in k6_cc0sp2 \\ & X0) \Rightarrow (k1_clvect_1 (k8_cfunctor (u1_struct_0 X0)) X2 X1 \in k6_cc0sp2 \\ & X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow & ((v13_algstr_0 (k8_cfunclom X0)) \wedge \\ & ((v2_rlvect_1 (k8_cfunclom X0)) \wedge ((v3_rlvect_1 (k8_cfunclom \\ & X0)) \wedge ((v4_rlvect_1 (k8_cfunclom X0)) \wedge ((v2_clvect_1 (k8_cfunclom \\ & X0)) \wedge ((v3_clvect_1 (k8_cfunclom X0)) \wedge ((v4_clvect_1 (k8_cfunclom \\ & X0)) \wedge ((v3_group_1 (k8_cfunclom X0)) \wedge ((v5_group_1 (k8_cfunclom \\ & X0)) \wedge ((v1_vectsp_1 (k8_cfunclom X0)) \wedge ((v3_vectsp_1 (k8_cfunclom \\ & X0)) \wedge ((v1_cfunclom (k8_cfunclom X0)) \wedge (v2_cfunclom (k8_cfunclom \\ & X0))))))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow ((\neg v2_struct_0 (k8_cfunclom X0)) \wedge (v1_cfunclom (k8_cfunclom X0))) \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow ((v5_clvect_1 (k8_cfunclom X0)) \wedge (v1_cfunclom (k8_cfunclom X0))) \quad (6)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (7)$$

Assume the following.

$$\forall X0. (l1_cfunclom X0) \Rightarrow ((l6_algstr_0 X0) \wedge (l1_clvect_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow ((v1_cfunclom (k8_cfunclom X0)) \wedge (l1_cfunclom (k8_cfunclom X0))) \quad (9)$$

Assume the following.

$$m1_subset_1 k6_complex1 k2_numbers \quad (10)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k2_numbers) \Rightarrow (m1_subset_1 (k10_complex1 X0) k2_numbers) \quad (11)$$

Assume the following.

$$k6_complex1 = np_1 \quad (12)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (13)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k8_cfuncom \\ (u1_struct_0 X0)))) \Rightarrow ((X1 \in k6_cc0sp2 X0) \Rightarrow (k4_algstr_0 (k8_cfuncom \\ (u1_struct_0 X0)) X1 \in k6_cc0sp2 X0))) \end{aligned}$$