

t27_c0sp2
(TMWFRsGc1HBoK7qcpURTP57ccGjwmaZnJZD)

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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k12_funcsdom : \iota \Rightarrow \iota$ be given. Let $k6_c0sp2 : \iota \Rightarrow \iota$ be given. Let $v4_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ 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 $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_funcsdom : \iota \Rightarrow o$ be given. Let $v2_funcsdom : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_funcsdom : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v2_rlvect_1 X0) \wedge (l1_algstr_0 X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (k3_rlvect_1 X0 X1 X2 = k1_algstr_0 X0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k12_funcsdom (u1_struct_0 X0)))) \Rightarrow ((X1 \in k6_c0sp2 X0) \Rightarrow (k4_algstr_0 (k12_funcsdom (u1_struct_0 X0)) X1 \in k6_c0sp2 X0))) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\forall X2.(\\ m1_subset_1 X2 (u1_struct_0 (k12_funcsdom (u1_struct_0 X0)))) \Rightarrow \\ ((X2 \in k6_c0sp2 X0) \Rightarrow (k1_rlvect_1 (k12_funcsdom (u1_struct_0 X0)) \\ X2 X1 \in k6_c0sp2 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k12_funcsdom \\ (u1_struct_0 X0)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ (k12_funcsdom (u1_struct_0 X0)))) \Rightarrow (((X1 \in k6_c0sp2 X0) \wedge (X2 \in k6_c0sp2 \\ X0)) \Rightarrow (k3_rlvect_1 (k12_funcsdom (u1_struct_0 X0)) X1 X2 \in k6_c0sp2 \\ X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(v13_algstr_0 (k12_funcsdom X0) \wedge ((v3_group_1 (k12_funcsdom \\ X0) \wedge (v5_group_1 (k12_funcsdom X0) \wedge ((v1_vectsp_1 (k12_funcsdom \\ X0) \wedge (v3_vectsp_1 (k12_funcsdom X0) \wedge (v2_rlvect_1 (k12_funcsdom \\ X0) \wedge (v3_rlvect_1 (k12_funcsdom X0) \wedge (v4_rlvect_1 (k12_funcsdom \\ X0) \wedge (v5_rlvect_1 (k12_funcsdom X0) \wedge (v6_rlvect_1 (k12_funcsdom \\ X0) \wedge (v7_rlvect_1 (k12_funcsdom X0) \wedge (v1_funcsdom (k12_funcsdom \\ X0) \wedge (v2_funcsdom (k12_funcsdom X0)))))))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(\neg v2_struct_0 (k12_funcsdom X0) \wedge (v1_funcsdom (k12_funcsdom \\ X0))) \quad (7)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (8)$$

Assume the following.

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

Assume the following.

$$\forall X0.(l1_funcsdom X0) \Rightarrow ((l6_algstr_0 X0) \wedge (l1_rlvect_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v1_funcsdom (k12_funcsdom X0) \wedge (l1_funcsdom (k12_funcsdom \\ X0))) \quad (11)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_ideal_1 \\
& X1 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (((X2 \in X1) \wedge (X3 \in X1)) \Rightarrow (k1_algstr_0 \\
& X0 X2 X3 \in X1))))))
\end{aligned} \tag{12}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_c0sp1 X1 \\
& X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((X2 \in X1) \Rightarrow \\
& (k4_algstr_0 X0 X2 \in X1))))))
\end{aligned} \tag{13}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v2_funcsdom X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v5_group_1 X0) \wedge ((v1_vectsp_1 X0) \wedge ((v3_vectsp_1 X0) \wedge (\\
& l1_funcsdom X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
& (u1_struct_0 X0))) \Rightarrow ((v4_c0sp1 X1 X0) \Leftrightarrow ((v1_ideal_1 X1 X0) \wedge ((v1_c0sp1 \\
& X1 X0) \wedge (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3.(\\
& m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((X3 \in X1) \Rightarrow (k1_rlvect_1 X0 X3 \\
& X2 \in X1)))))))))
\end{aligned} \tag{14}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
& X0))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
& (u1_struct_0 (k12_funcsdom (u1_struct_0 X0)))))) \Rightarrow ((X1 = k6_c0sp2 \\
& X0) \Rightarrow (v4_c0sp1 X1 (k12_funcsdom (u1_struct_0 X0))))))
\end{aligned}$$