

t2_c0sp1
(TMd9YneV88eERYbs5HJTRXAgrceHHGJ5VHC)

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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 $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ 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 $v2_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $g6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_c0sp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_realset1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_c0sp1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\
& \quad (\forall X2. (m1_subset_1 X2 X0) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge \\
& \quad ((v1_funct_2 X3 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (\forall X4. ((v1_funct_1 \\
& \quad X4) \wedge ((v1_funct_2 X4 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& \quad (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (\forall X5. ((\neg v2_struct_0 \\
& \quad X5) \wedge (v13_algstr_0 X5) \wedge ((v2_rlvect_1 X5) \wedge ((v3_rlvect_1 X5) \wedge \\
& \quad ((v4_rlvect_1 X5) \wedge ((v3_group_1 X5) \wedge ((v4_vectsp_1 X5) \wedge ((v5_vectsp_1 \\
& \quad X5) \wedge (l6_algstr_0 X5)))))))))) \Rightarrow (\forall X6. (m1_subset_1 X6 (k1_zfmisc_1 \\
& \quad (u1_struct_0 X5))) \Rightarrow (((X6 = X0) \wedge ((X3 = k1_realset1 (u1_algstr_0 \\
& \quad X5) X6) \wedge ((X4 = k1_realset1 (u2_algstr_0 X5) X6) \wedge ((X1 = k5_struct_0 \\
& \quad X5) \wedge ((X2 = k4_struct_0 X5) \wedge (v1_c0sp1 X6 X5)))))) \Rightarrow (m1_c0sp1 (g6_algstr_0 \\
& \quad X0 X3 X4 X1 X2) X5))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge \\ & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))) \Rightarrow \\ & (\forall X1.(m1_c0sp1 X1 X0) \Rightarrow ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 \\ & X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\ & (v3_group_1 X1) \wedge ((v4_vectsp_1 X1) \wedge ((v5_vectsp_1 X1) \wedge (l6_algstr_0 \\ & X1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l5_algstr_0 X0)) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 \\ & (k4_c0sp1 X0 X1) X1) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\ & ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))) \wedge \\ & m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 \\ & (k3_c0sp1 X0 X1) X1) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l5_algstr_0 X0)) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_funct_1 \\ & (k2_c0sp1 X0 X1)) \wedge ((v1_funct_2 (k2_c0sp1 X0 X1) (k2_zfmisc_1 X1 \\ & X1) X1) \wedge (m1_subset_1 (k2_c0sp1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X1 X1) X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_funct_1 \\ & (k1_c0sp1 X0 X1)) \wedge ((v1_funct_2 (k1_c0sp1 X0 X1) (k2_zfmisc_1 X1 \\ & X1) X1) \wedge (m1_subset_1 (k1_c0sp1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X1 X1) X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l5_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v3_c0sp1 X1 \\ & X0) \Rightarrow ((v1_xboole_0 X1) \vee (k4_c0sp1 X0 X1 = k5_struct_0 X0)))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_rlvect_1 \\ & X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v1_ideal_1 X1 X0) \wedge (v1_c0sp1 \\ & X1 X0)) \Rightarrow ((v1_xboole_0 X1) \vee (k3_c0sp1 X0 X1 = k4_struct_0 X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l5_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v3_c0sp1 X1 \\ & X0) \Rightarrow ((v1_xboole_0 X1) \vee (k2_c0sp1 X0 X1 = k1_realset1 (u2_algstr_0 \\ & X0) X1)))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_ideal_1 \\ & X1 X0) \Rightarrow ((v1_xboole_0 X1) \vee (k1_c0sp1 X0 X1 = k1_realset1 (u1_algstr_0 \\ & X0) X1)))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v2_c0sp1 X1 \\ & X0) \Rightarrow ((v1_ideal_1 X1 X0) \wedge (v1_c0sp1 X1 X0)))) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge (\\ & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & (((v2_c0sp1 X1 X0) \wedge (v3_c0sp1 X1 X0)) \Rightarrow ((v1_xboole_0 X1) \vee ((\neg v2_struct_0 \\ & (g6_algstr_0 X1 (k1_c0sp1 X0 X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) \\ & (k3_c0sp1 X0 X1))) \wedge ((v13_algstr_0 (g6_algstr_0 X1 (k1_c0sp1 X0 \\ & X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) (k3_c0sp1 X0 X1))) \wedge ((v2_rlvect_1 \\ & (g6_algstr_0 X1 (k1_c0sp1 X0 X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) \\ & (k3_c0sp1 X0 X1))) \wedge ((v3_rlvect_1 (g6_algstr_0 X1 (k1_c0sp1 X0 \\ & X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) (k3_c0sp1 X0 X1))) \wedge ((v4_rlvect_1 \\ & (g6_algstr_0 X1 (k1_c0sp1 X0 X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) \\ & (k3_c0sp1 X0 X1))) \wedge ((v3_group_1 (g6_algstr_0 X1 (k1_c0sp1 X0 X1) \\ & (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) (k3_c0sp1 X0 X1))) \wedge ((v4_vectsp_1 \\ & (g6_algstr_0 X1 (k1_c0sp1 X0 X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) \\ & (k3_c0sp1 X0 X1))) \wedge ((v5_vectsp_1 (g6_algstr_0 X1 (k1_c0sp1 X0 \\ & X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) (k3_c0sp1 X0 X1))) \wedge (l6_algstr_0 \\ & (g6_algstr_0 X1 (k1_c0sp1 X0 X1) (k2_c0sp1 X0 X1) (k4_c0sp1 X0 X1) \\ & (k3_c0sp1 X0 X1)))))))))) \end{aligned}$$