

t76_fvaluat1

(TMVb5HSXvYUwMcsiADLh3ZeveA1JKbgvbJG)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ 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 $v1_realset2 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_fvaluat1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_fvaluat1 : \iota \Rightarrow o$ be given. Let $v1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l3_struct_0 : \iota \Rightarrow o$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $k6_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge (\\ & (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_fvaluat1 X1 X0) \Rightarrow (\neg (v3_fvaluat1 \\ & X0) \wedge (k5_struct_0 X0 \in k8_fvaluat1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. (l3_struct_0 X0) \Rightarrow (m1_subset_1 (u3_struct_0 X0) (u1_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(l5_algstr_0 X0) \Rightarrow ((l4_algstr_0 X0) \wedge (l4_struct_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l4_algstr_0 X0) \Rightarrow ((l3_struct_0 X0) \wedge (l3_algstr_0 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))) \wedge (m1_fvaluat1 X1 X0) \Rightarrow ((\neg v1_xboole_0 \\ & (k8_fvaluat1 X0 X1)) \wedge ((v1_ideal_1 (k8_fvaluat1 X0 X1) (k7_fvaluat1 \\ & X0 X1)) \wedge ((v2_ideal_1 (k8_fvaluat1 X0 X1) (k7_fvaluat1 X0 X1)) \wedge \\ & ((v3_ideal_1 (k8_fvaluat1 X0 X1) (k7_fvaluat1 X0 X1)) \wedge (m1_subset_1 \\ & (k8_fvaluat1 X0 X1) (k1_zfmisc_1 (u1_struct_0 (k7_fvaluat1 X0 \\ & X1))))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))) \wedge (m1_fvaluat1 X1 X0) \Rightarrow ((\neg v2_struct_0 \\ & (k7_fvaluat1 X0 X1)) \wedge (\neg v6_struct_0 (k7_fvaluat1 X0 X1)) \wedge ((v13_algstr_0 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v36_algstr_0 (k7_fvaluat1 X0 X1)) \wedge ((v3_group_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v5_group_1 (k7_fvaluat1 X0 X1)) \wedge ((v4_vectsp_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v5_vectsp_1 (k7_fvaluat1 X0 X1)) \wedge ((v2_rlvect_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v3_rlvect_1 (k7_fvaluat1 X0 X1)) \wedge ((v4_rlvect_1 \\ & (k7_fvaluat1 X0 X1)) \wedge (l6_algstr_0 (k7_fvaluat1 X0 X1))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow ((v1_subset_1 X1 X0) \Leftrightarrow (X1 \neq X0)) \quad (9)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge (\\
& (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\
& X0) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((\neg v6_struct_0 X2) \wedge ((v13_algstr_0 \\
& X2) \wedge ((v36_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 X2) \wedge (\\
& (v4_vectsp_1 X2) \wedge ((v5_vectsp_1 X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 \\
& X2) \wedge ((v4_rlvect_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow ((X2 = k7_fvaluat1 \\
& X0 X1) \Leftrightarrow ((u1_struct_0 X2 = k6_fvaluat1 X0 X1) \wedge ((u1_algstr_0 X2 = \\
& k2_partfun1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (\\
& u1_struct_0 X0) (u1_algstr_0 X0) (k2_zfmisc_1 (k6_fvaluat1 X0 \\
& X1) (k6_fvaluat1 X0 X1))) \wedge ((u2_algstr_0 X2 = k2_partfun1 (k2_zfmisc_1 \\
& (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 X0) (u2_algstr_0 \\
& X0) (k2_zfmisc_1 (k6_fvaluat1 X0 X1) (k6_fvaluat1 X0 X1))) \wedge ((u2_struct_0 \\
& X2 = k4_struct_0 X0) \wedge (u3_struct_0 X2 = k5_struct_0 X0))))))))) \\
& \hspace{15em} (10)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge (\\
& (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\
& X0) \Rightarrow (v1_subset_1 (k8_fvaluat1 X0 X1) (u1_struct_0 (k7_fvaluat1 \\
& X0 X1))))))
\end{aligned}$$