

t59_rltopsp1
(TMW8QUJ3MnuLKzYZGEUuwKE9d6gVeemC818)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ 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 $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rltopsp1 : \iota \Rightarrow o$ be given. Let $v7_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $m1_connsp_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_yellow13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge \\ & ((v5_rlvect_1 X0) \wedge ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 \\ & X0) \wedge ((v6_rltopsp1 X0) \wedge ((v7_rltopsp1 X0) \wedge (l1_rltopsp1 X0)))))))))) \Rightarrow \\ & (\forall X1. (m1_yellow13 X1 X0 (k4_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_connsp_2 X2 X0 (k4_struct_0 X0)) \Rightarrow (\exists X3. (m1_connsp_2 \\ & X3 X0 (k4_struct_0 X0)) \wedge ((X3 \in X1) \wedge (r1_tarski (k2_pre_topc X0 X3) \\ & X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((l1_pre_topc X0) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (\exists X2. m1_yellow13 X2 X0 X1) \tag{2}$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \tag{3}$$

Assume the following.

$$\forall X0. (l1_rlvect_1 X0) \Rightarrow (l2_algstr_0 X0) \tag{4}$$

Assume the following.

$$\forall X0.(l1_rltopsp1\ X0)\Rightarrow((l1_rlvect_1\ X0)\wedge(l1_pre_topc\ X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l2_struct_0\ X0)\Rightarrow(m1_subset_1\ (k4_struct_0\ X0)\ (u1_struct_0\ X0)) \quad (6)$$

Theorem 1

$$\begin{aligned} &\forall X0.((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge((v13_algstr_0 \\ &\quad X0)\wedge((v2_rlvect_1\ X0)\wedge((v3_rlvect_1\ X0)\wedge((v4_rlvect_1\ X0)\wedge \\ &\quad ((v5_rlvect_1\ X0)\wedge((v6_rlvect_1\ X0)\wedge((v7_rlvect_1\ X0)\wedge((v8_rlvect_1 \\ &\quad X0)\wedge((v6_rltopsp1\ X0)\wedge((v7_rltopsp1\ X0)\wedge(l1_rltopsp1\ X0))))))))))\Rightarrow \\ &\quad (\forall X1.(m1_connsp_2\ X1\ X0\ (k4_struct_0\ X0))\Rightarrow(\exists X2. \\ &\quad (m1_connsp_2\ X2\ X0\ (k4_struct_0\ X0))\wedge(r1_tarski\ (k2_pre_topc \\ &\quad X0\ X2)\ X1))) \end{aligned}$$