

t44\_rltopsp1  
(TMJJ1w6J3erdJ7jBY3mUdUX8C23ivk94KcT)

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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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_connsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_yellow13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l1\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \quad (1)$$

Assume the following.

$$\forall X0. (l2\_algstr\_0 X0) \Rightarrow ((l2\_struct\_0 X0) \wedge (l1\_algstr\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0. (l1\_rlvect\_1 X0) \Rightarrow (l2\_algstr\_0 X0) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_rltopsp1 X0) \Rightarrow ((l1\_rlvect\_1 X0) \wedge (l1\_pre\_topc X0)) \quad (4)$$

Assume the following.

$$\forall X0. (l2\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (k4\_struct\_0 X0) (u1\_struct\_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow \\ & ((m1\_yellow13 X2 X0 X1) \Leftrightarrow (\forall X3. (m1\_connsp\_2 X3 X0 X1) \Rightarrow (\exists X4. \\ & (m1\_connsp\_2 X4 X0 X1) \wedge ((X4 \in X2) \wedge (r1\_tarski X4 X3))))))) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (v2\_pre\_topc X0) \wedge (v13\_algstr\_0 \\ & X0) \wedge (v2\_rlvect\_1 X0) \wedge (v3\_rlvect\_1 X0) \wedge (v4\_rlvect\_1 X0) \wedge \\ & ((v5\_rlvect\_1 X0) \wedge (v6\_rlvect\_1 X0) \wedge (v7\_rlvect\_1 X0) \wedge (v8\_rlvect\_1 \\ & X0) \wedge ((v6\_rltopsp1 X0) \wedge (v7\_rltopsp1 X0) \wedge (l1\_rltopsp1 X0)))))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & X0)))) \Rightarrow ((X1 = ReplSep (toset (\lambda X2 : \iota. m1\_connsp\_2 X2 X0 (k4\_struct\_0 \\ & X0))) (\lambda X2 : \iota. True) (\lambda X2 : \iota. X2)) \Rightarrow (m1\_yellow13 X1 X0 \\ & (k4\_struct\_0 X0)))))) \end{aligned}$$