

t5_tops.3 (TMQHG- gQhBHc9mTazifGezkRTmjzd2LbVXw6)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
 & \quad (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
 & \quad (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (r1_tarski (\\
 & \quad k1_tops_1 X0 (k4_subset_1 (u1_struct_0 X0) X1 X2)) (k4_subset_1 \\
 & \quad (u1_struct_0 X0) (k2_pre_topc X0 X1) (k1_tops_1 X0 X2)))))) \quad (1)
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
 & \quad (u1_struct_0 X0))) \Rightarrow (((v4_pre_topc X1 X0) \Rightarrow (k2_pre_topc X0 X1 = \\
 & \quad X1)) \wedge (((v2_pre_topc X0) \wedge (k2_pre_topc X0 X1 = X1)) \Rightarrow (v4_pre_topc \\
 & \quad X1 X0)))) \quad (2)
 \end{aligned}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
 & \quad (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
 & \quad (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v4_pre_topc \\
 & \quad X2 X0) \Rightarrow (r1_tarski (k1_tops_1 X0 (k4_subset_1 (u1_struct_0 X0) \\
 & \quad X2 X1)) (k4_subset_1 (u1_struct_0 X0) X2 (k1_tops_1 X0 X1))))))
 \end{aligned}$$