

t20_compl_sp
(TMUMdGk5x4PCn3xe5CNhrM5xQZy7ELNckcD)

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Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_compts_1 : \iota \Rightarrow o$ be given. Let $v8_compl_sp : \iota \Rightarrow o$ 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 $m1_setfam_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_card_3 : \iota \Rightarrow o$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow ((v8_compl_sp X0) \Leftrightarrow (\forall X1.(\\ & \quad m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (\neg(m1_setfam_1 X1 (u1_struct_0 X0)) \wedge ((v1_tops_2 X1 X0) \wedge ((v4_card_3 \\ & \quad X1) \wedge (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & \quad X0)))) \Rightarrow (\neg(r1_tarSKI X2 X1) \wedge ((m1_setfam_1 X2 (u1_struct_0 X0)) \wedge \\ & \quad (v1_finset_1 X2)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow ((v1_compts_1 X0) \Leftrightarrow (\forall X1.(\\ & \quad m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (\neg(m1_setfam_1 X1 (u1_struct_0 X0)) \wedge ((v1_tops_2 X1 X0) \wedge (\forall X2. \\ & \quad (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (\neg(r1_tarSKI X2 X1) \wedge ((m1_setfam_1 X2 (u1_struct_0 X0)) \wedge (v1_finset_1 \\ & \quad X2)))))))))) \end{aligned} \tag{2}$$

Theorem 1 $\forall X0.(l1_pre_topc X0) \Rightarrow ((v1_compts_1 X0) \Rightarrow (v8_compl_sp X0)).$