

t82_tops_3

(TMXkpJ3KwDMfw6FbKfpGgH3i9GV49KDL9wZ)

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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 $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (((r1_tarSKI X2 X3) \wedge (g1_pre_topc \\ & (u1_struct_0 X0) (u1_pre_topc X0) = g1_pre_topc (u1_struct_0 X1) \\ & (u1_pre_topc X1))) \Rightarrow (r1_tarSKI (k1_tops_1 X0 X2) (k1_tops_1 X1 \\ & X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(r1_tarSKI X0 k1_xboole_0) \Rightarrow (X0 = k1_xboole_0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow ((v2_tops_1 X1 X0) \Leftrightarrow (k1_tops_1 X0 X1 = k1_xboole_0))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (((r1_tarSKI X3 X2) \wedge ((g1_pre_topc \\ & (u1_struct_0 X0) (u1_pre_topc X0) = g1_pre_topc (u1_struct_0 X1) \\ & (u1_pre_topc X1)) \wedge (v2_tops_1 X2 X0))) \Rightarrow (v2_tops_1 X3 X1)))))) \end{aligned}$$