

t13_tex_1

(TMQg1mN8QiKvynGVZaUdQyN7dveu9uPGPR4)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v2_tdlat_3 : \iota \Rightarrow o$ 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 $k1_xboole_0 : \iota$ be given. Let $v1_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v2_tdlat_3 \\ &X0) \wedge (l1_pre_topc X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow (((v1_xboole_0 X1) \Rightarrow (k2_pre_topc X0 X1 = k1_xboole_0)) \wedge \\ &((\neg v1_xboole_0 X1) \Rightarrow (k2_pre_topc X0 X1 = u1_struct_0 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v2_tdlat_3 \\ &X0) \wedge (l1_pre_topc X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow (((X1 \neq u1_struct_0 X0) \Rightarrow (k1_tops_1 X0 X1 = k1_xboole_0)) \wedge \\ &((X1 = u1_struct_0 X0) \Rightarrow (k1_tops_1 X0 X1 = u1_struct_0 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow ((v1_tops_1 X1 X0) \Leftrightarrow (k2_pre_topc X0 X1 = u1_struct_0 \\ &X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0))) \Rightarrow ((v2_tops_1 X1 X0) \Leftrightarrow (k1_tops_1 X0 X1 = k1_xboole_0))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v2_tdlat_3 \\ X0) \wedge (l1_pre_topc X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (((X1 \neq k1_xboole_0) \Rightarrow (v1_tops_1 X1 X0)) \wedge (\\ (X1 \neq u1_struct_0 X0) \Rightarrow (v2_tops_1 X1 X0)))) \end{aligned}$$