

t22_tdlat_2

(TMXmTu3ZVQP49qqQWkccuBAJSRbQAehibsG)

October 27, 2020

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 $k1_tdlat_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow (k1_tdlat_2 X0 (k1_tdlat_2 X0 X1) = k1_tdlat_2 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (m1_subset_1 (k4_subset_1 X0 X1 X2) (k1_zfmisc_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow (m1_subset_1 (k1_tdlat_2 X0 X1) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1\ X1\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))) \Rightarrow \\
& (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0)))) \Rightarrow ((X2 = k1_tdlat_2\ X0\ X1) \Leftrightarrow (\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1 \\
& (u1_struct_0\ X0))) \Rightarrow ((X3 \in X2) \Leftrightarrow (\exists X4.(m1_subset_1\ X4\ (k1_zfmisc_1 \\
& (u1_struct_0\ X0))) \wedge ((X3 = k1_tops_1\ X0\ X4) \wedge (X4 \in X1))))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0) \wedge (l1_pre_topc\ X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1\ X1\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))) \Rightarrow \\
& (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0)))) \Rightarrow (k1_tdlat_2\ X0\ (k4_subset_1\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0))\ X1\ X2) = k4_subset_1\ (k1_zfmisc_1\ (u1_struct_0\ X0))\ (k1_tdlat_2 \\
& X0\ X1)\ (k1_tdlat_2\ X0\ X2)))
\end{aligned}$$