

l16_waybel25

(TMKx3SC5rdZxcQJqUce9Y95uCLw5qyBx1Pw)

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Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow & (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((X3 = k1_tarski \\ & X1) \wedge ((X4 = k1_tarski X2) \wedge (\forall X5. (m1_subset_1 X5 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow ((v3_pre_topc X5 X0) \wedge (X1 \in X5)) \Rightarrow (X2 \in X5)))))) \Rightarrow \\ & (r1_tarski (k2_pre_topc X0 X3) (k2_pre_topc X0 X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow & (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((X3 = k1_tarski \\ & X2) \wedge ((X1 \in k2_pre_topc X0 X3) \wedge ((v3_pre_topc X4 X0) \wedge (X1 \in X4))) \Rightarrow \\ & (X2 \in X4)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (r1_tarski X1 (k2_pre_topc X0 X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0. (l1_pre_topc\ X0) \Rightarrow (\forall X1. (m1_subset_1\ X1\ (u1_struct_0 \\ X0)) \Rightarrow (\forall X2. (m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow (\forall X3. \\ (m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow (\forall X4. \\ (m1_subset_1\ X4\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow (((X3 = k1_tarski \\ X1) \wedge (X4 = k1_tarski\ X2)) \Rightarrow ((X1 \in k2_pre_topc\ X0\ X4) \Leftrightarrow (r1_tarski\ (\\ k2_pre_topc\ X0\ X3)\ (k2_pre_topc\ X0\ X4)))))))))) \end{aligned}$$