

t39_tex_4

(TMQwD25WXZoiQNYzgrqdrwsqC3icLpoWGuM)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ 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 $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_tex_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\forall X2. (X2 \in X0) \Rightarrow (r1_tarski X1 X2)) \Rightarrow \\ & ((X0 = k1_xboole_0) \vee (r1_tarski X1 (k1_setfam_1 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v3_pre_topc \\ & X1 X0) \wedge (r1_tarski X2 X1)) \Rightarrow (r1_tarski (k3_tex_4 X0 X2) X1)))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((ReplSep (toset \\ & (\lambda X2 : \iota. m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))) \\ & (\lambda X2 : \iota. (v3_pre_topc X2 X0) \wedge (r1_tarski X1 X2)) (\lambda X2 : \iota. \\ & X2) \neq k1_xboole_0) \Rightarrow (r1_tarski (k3_tex_4 X0 X1) (k1_setfam_1 (ReplSep \\ & (toset (\lambda X2 : \iota. m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) (\lambda X2 : \iota. (v3_pre_topc X2 X0) \wedge (r1_tarski X1 X2)) (\lambda X2 : \\ & \iota. X2)))))) \end{aligned}$$