

t39_tdlat_3 (TMHdHMjkbUkq- TyMi9ccSMap8exSLmXvvjAH)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v4_tdlat_3 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $k1_tdlat_1 : \iota \Rightarrow \iota$ be given. Let $k5_tdlat_1 : \iota \Rightarrow \iota$ 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 $v4_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ &X0))) \Rightarrow ((v4_tdlat_3 X0) \Leftrightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ &(u1_struct_0 X0)))) \Rightarrow ((v4_tops_1 X1 X0) \Rightarrow ((v5_tops_1 X1 X0) \wedge (v6_tops_1 \\ &X1 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. ((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (r1_tarski (k5_tdlat_1 X0) (k1_tdlat_1 X0)) \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (k5_tdlat_1 X0 = \text{ReplSep } (\text{toset } (\lambda X1 : \\ \iota. m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) (\lambda X1 : \\ \iota. v5_tops_1 X1 X0) (\lambda X1 : \iota. X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (k1_tdlat_1 X0 = \text{ReplSep } (\text{toset } (\lambda X1 : \\ \iota. m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) (\lambda X1 : \\ \iota. v4_tops_1 X1 X0) (\lambda X1 : \iota. X1)) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v4_tdlat_3 X0) \wedge (l1_pre_topc X0)))) \Rightarrow (k1_tdlat_1 X0 = k5_tdlat_1 X0)$$