t66_tdlat_2 (TMJYghuDSQ3CwVVQntU2gyzfWVErbh8rqaW)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. 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 $v1\_tdlat\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow ((\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X2 \in X1) \Rightarrow (r1\_tarski\ X2\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X2))))) \Rightarrow ((r1\_tarski\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1)\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1)))) \wedge (k2\_pre\_topc\ X0\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1) = k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((v4\_tops\_1\ X1\ X0) \Leftrightarrow ((r1\_tarski\ (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ X1))\ X1) \wedge (r1\_tarski\ X1\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X1)))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow ((v1\_tdlat\_2\ X1\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X2 \in X1) \Rightarrow (v4\_tops\_1\ X2\ X0))))) \tag{4}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow((v1\_tdlat\_2\ X1\ X0)\Rightarrow((r1\_tarski\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1)\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1))))\wedge(k2\_pre\_topc\ X0\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1) = k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ (k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1)))))))$$