

t42\_tdlat\_3  
(TMJYYmcai7Xdb6q1ag1kLDxVCSGSshnyec1)

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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  $k9\_tdlat\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  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  $v4\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v6\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (r1\_tarski (k9\_tdlat\_1 X0) (k1\_tdlat\_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0))) \Rightarrow ((v4\_tdlat\_3 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow ((v4\_tops\_1 X1 X0) \Rightarrow ((v5\_tops\_1 X1 X0) \wedge (v6\_tops\_1 X1 X0)))) \quad (2)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (k9\_tdlat\_1 X0 = ReplSep (toset (\lambda X1 : \iota.m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) (\lambda X1 : \iota.v6\_tops\_1 X1 X0) (\lambda X1 : \iota.X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (k1\_tdlat\_1 X0 = ReplSep (toset (\lambda X1 : \iota.m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) (\lambda X1 : \iota.v4\_tops\_1 X1 X0) (\lambda X1 : \iota.X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (6)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (v2\_pre\_topc X0) \wedge (v4\_tdlat\_3 X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (k1\_tdlat\_1 X0 = k9\_tdlat\_1 X0)$$