

t15\_tdlat\_3

(TMc2FZZxoFWA7Xx53tLaMCwpMRN9uD97zAL)

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Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_tdlat\_3 : \iota \Rightarrow o$  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  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k9\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Leftrightarrow (X2 \in X1)) \Rightarrow (X0 = X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0. k9\_setfam\_1 X0 = k1\_zfmisc\_1 X0 \quad (5)$$

Assume the following.

$$\forall X0. \neg v1\_xboole\_0 (k1\_zfmisc\_1 X0) \quad (6)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (m1\_subset\_1 (u1\_pre\_topc X0) (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((v3\_pre\_topc\ X1\ X0) \Leftrightarrow (X1 \in u1\_pre\_topc\ X0))) \quad (8)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow ((v1\_tdlat\_3\ X0) \Leftrightarrow (u1\_pre\_topc\ X0 = k9\_setfam\_1\ (u1\_struct\_0\ X0))) \quad (9)$$

**Theorem 1**

$$\forall X0.((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow ((v1\_tdlat\_3\ X0) \Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (v3\_pre\_topc\ X1\ X0)))$$