

t2\_struct\_0  
(TMWAhwX3T6Bz3p6uwWxi1U13LGGXoyv88HG)

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Let  $v6\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l4\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k5\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k8\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l3\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u3\_struct\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X0 \in k4\_xboole\_0 X1 (k1\_tarski X2)) \Leftrightarrow ((X0 \in X1) \wedge (X0 \neq X2)) \quad (1)$$

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.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k7\_subset\_1 X0 X1 X2 = k4\_xboole\_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v7\_struct\_0 X0) \wedge (l2\_struct\_0 X0)) \Rightarrow (\neg v1\_xboole\_0 (k8\_struct\_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (l4\_struct\_0 X0) \Rightarrow ((l2\_struct\_0 X0) \wedge (l3\_struct\_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (l2\_struct\_0 X0) \Rightarrow (l1\_struct\_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(l3\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (k5\_struct\_0 X0) (u1\_struct\_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (k2\_struct\_0 X0) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(l4\_struct\_0 X0) \Rightarrow ((v6\_struct\_0 X0) \Leftrightarrow (k4\_struct\_0 X0 = k5\_struct\_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l3\_struct\_0 X0) \Rightarrow (k5\_struct\_0 X0 = u3\_struct\_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow (k2\_struct\_0 X0 = u1\_struct\_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (12)$$

Assume the following.

$$\forall X0.(l2\_struct\_0 X0) \Rightarrow (k8\_struct\_0 X0 = k7\_subset\_1 (u1\_struct\_0 X0) (k2\_struct\_0 X0) (k1\_tarski (k4\_struct\_0 X0))) \quad (13)$$

Assume the following.

$$\forall X0.(l4\_struct\_0 X0) \Rightarrow ((\neg v6\_struct\_0 X0) \Rightarrow (\neg v7\_struct\_0 X0)) \quad (14)$$

**Theorem 1**

$$\forall X0.((\neg v6\_struct\_0 X0) \wedge (l4\_struct\_0 X0)) \Rightarrow (k5\_struct\_0 X0 \in k8\_struct\_0 X0)$$