

t22\_yellow14

(TMT6NaYnMLFhsvjo2ABbC5Q3pbyxuaVFdWE)

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Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (\neg X0 \in X1) \Rightarrow (r1\_xboole\_0 (k1\_tarski X0) X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \neg (r1\_xboole\_0 (k1\_tarski X0) X1) \wedge (X0 \in X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k2\_pre\_topc X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X2 = k2\_pre\_topc X0 X1) \Leftrightarrow (\forall X3. (X3 \in u1\_struct\_0 X0) \Rightarrow ((X3 \in X2) \Leftrightarrow (\forall X4. (m1\_subset\_1 X4 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\neg (v3\_pre\_topc X4 X0) \wedge ((X3 \in X4) \wedge (r1\_xboole\_0 X1 X4)))))))))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0 \\ & \quad X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3. \\ & \quad (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X4. \\ & \quad (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (((X3 = k1\_tarski \\ & \quad X1) \wedge ((X4 = k1\_tarski\ X2) \wedge (\forall X5.(m1\_subset\_1\ X5\ (k1\_zfmisc\_1 \\ & \quad (u1\_struct\_0\ X0))) \Rightarrow (((v3\_pre\_topc\ X5\ X0) \wedge (X1 \in X5)) \Rightarrow (X2 \in X5)))))) \Rightarrow \\ & \quad (r1\_tarski\ (k2\_pre\_topc\ X0\ X3)\ (k2\_pre\_topc\ X0\ X4)))))) \end{aligned}$$