

t8\_tex\_4

(TMNr6VdeabxBgvXyw6nn7ZPJ4XEXe2AGaf5)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  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  $v2\_tex\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_tex\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Rightarrow (r1\_xboole\_0 X2 X1)) \Rightarrow (r1\_xboole\_0 (k3\_tarski X0) X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Rightarrow (r1\_tarski X2 X1)) \Rightarrow (r1\_tarski (k3\_tarski X0) X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0. (r1\_tarski X0 k1\_xboole\_0) \Rightarrow (X0 = k1\_xboole\_0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (r1\_tarski (k1\_setfam\_1 X1) X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarSKI X0 X1)\wedge(r1\_tarSKI X1 X2))\Rightarrow(r1\_tarSKI X0 X2) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarSKI X0 X1)\wedge(r1\_tarSKI X0 X2))\Rightarrow(r1\_tarSKI X0 (k3\_xboole\_0 X1 X2)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(k6\_setfam\_1 X0 X1 = k1\_setfam\_1 X1) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(k5\_setfam\_1 X0 X1 = k3\_tarSKI X1) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_xboole\_0 X0 X1)\Leftrightarrow(k3\_xboole\_0 X0 X1 = k1\_xboole\_0) \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_pre\_topc X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\Rightarrow((v2\_tex\_4 X1 X0)\Leftrightarrow(\forall X2. \\ (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))\Rightarrow((X2 \in X1)\Rightarrow(v1\_tex\_4 \\ X2 X0)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_pre\_topc X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_struct\_0 X0)))\Rightarrow((v1\_tex\_4 X1 X0)\Leftrightarrow(\forall X2.(m1\_subset\_1 \\ X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))\Rightarrow(\neg(v3\_pre\_topc X2 X0)\wedge(\neg \\ r1\_xboole\_0 X1 X2)\wedge(\neg r1\_tarSKI X1 X2)))))) \end{aligned} \quad (13)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (15)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0)\wedge(l1\_pre\_topc X0))\Rightarrow(\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\Rightarrow \\ ((v2\_tex\_4 X1 X0)\Rightarrow((k6\_setfam\_1 (u1\_struct\_0 X0) X1 = k1\_xboole\_0)\vee \\ (v1\_tex\_4 (k5\_setfam\_1 (u1\_struct\_0 X0) X1) X0)))) \end{aligned}$$