

t12\_cantor\_1  
(TML1qPUeXKqxfW9Ni7CFsj1MHuKqMTyrdg)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k8\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(r1\_tarski (k2\_tarski X0 X1) X2) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X2)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k1\_setfam\_1 (k2\_tarski X0 X1) = k3\_xboole\_0 X0 X1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow (k2\_cantor\_1 X0 X1 = k2\_cantor\_1 X0 (k2\_cantor\_1 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(k6\_setfam\_1 X0 X1 = k1\_setfam\_1 X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\neg v1\_xboole\_0 (k2\_tarski X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.v1\_finset\_1 (k2\_tarski X0 X1) \quad (9)$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \quad (10)$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0 (k1\_zfmisc\_1 X0) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(m1\_subset\_1 (k8\_setfam\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(m1\_subset\_1 (k2\_cantor\_1 X0 X1) (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(((X1\neq k1\_xboole\_0)\Rightarrow(k8\_setfam\_1 X0 X1 = k6\_setfam\_1 X0 X1))\wedge((X1 = k1\_xboole\_0)\Rightarrow(k8\_setfam\_1 X0 X1 = X0))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow((X2 = k2\_cantor\_1 X0 X1)\Leftrightarrow(\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 X0))\Rightarrow((X3 \in X2)\Leftrightarrow(\exists X4.(m1\_subset\_1 X4 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\wedge((r1\_tarski X4 X1)\wedge((v1\_finset\_1 X4)\wedge(X3 = k8\_setfam\_1 X0 X4)))))))))) \quad (15)$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow(\forall X2.\forall X3.((X2 \in k2\_cantor\_1 X0 X1)\wedge(X3 \in k2\_cantor\_1 X0 X1))\Rightarrow(k3\_xboole\_0 X2 X3 \in k2\_cantor\_1 X0 X1))$$