t6_cantor_1 (TMacJkPyRYTTavZxyZqk6wtg9RzTactAouW)

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Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $u1\_pre\_topc : \iota \Rightarrow \iota$ be given. Let $k1\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))) \Rightarrow (r1\_tarski\ X1\ (k1\_cantor\_1\ X0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (m1\_subset\_1\ (u1\_pre\_topc\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))) \Rightarrow (m1\_subset\_1\ (k1\_cantor\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow((v2\_pre\_topc\ X0)\Leftrightarrow((u1\_struct\_0\ X0 \in u1\_pre\_topc\ X0)\wedge((\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow((r1\_tarski\ X1\ (u1\_pre\_topc\ X0))\Rightarrow(k5\_setfam\_1\ (u1\_struct\_0\ X0)\ X1 \in u1\_pre\_topc\ X0)))\wedge(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((X1 \in u1\_pre\_topc\ X0)\wedge(X2 \in u1\_pre\_topc\ X0))\Rightarrow(k9\_subset\_1\ (u1\_struct\_0\ X0)\ X1\ X2 \in u1\_pre\_topc\ X0)))))))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow((X2 = k1\_cantor\_1\ X0\ X1)\Leftrightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0))\Rightarrow((X3 \in X2)\Leftrightarrow(\exists X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\wedge((r1\_tarski\ X4\ X1)\wedge(X3 = k5\_setfam\_1\ X0\ X4))))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(r1\_tarski\ X1\ X0)) \tag{8}$$

Theorem 1

$$\forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(u1\_pre\_topc\ X0 = k1\_cantor\_1\ (u1\_struct\_0\ X0)\ (u1\_pre\_topc\ X0))$$