

t26\_yellow\_9

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Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_tops\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $k2\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow \\ & (((v1\_tops\_2 X1 X0) \wedge ((v2\_cantor\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \Leftrightarrow ((v1\_tops\_2 (k2\_cantor\_1 \\ & (u1\_struct\_0 X0) X1) X0) \wedge ((v1\_cantor\_1 (k2\_cantor\_1 (u1\_struct\_0 \\ & X0) X1) X0) \wedge (m1\_subset\_1 (k2\_cantor\_1 (u1\_struct\_0 X0) X1) (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow \\ & ((u1\_pre\_topc X0 = k1\_cantor\_1 (u1\_struct\_0 X0) X1) \Leftrightarrow ((v1\_tops\_2 \\ & X1 X0) \wedge ((v1\_cantor\_1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X0)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow (m1\_subset\_1 (k2\_cantor\_1 X0 X1) (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \end{aligned} \tag{3}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1. \\ & ((v2\_pre\_topc\ X1)\wedge(l1\_pre\_topc\ X1))\Rightarrow(\forall X2.((v1\_tops\_2 \\ & X2\ X0)\wedge((v2\_cantor\_1\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1 \\ & (u1\_struct\_0\ X0))))))\Rightarrow(((u1\_struct\_0\ X0 = u1\_struct\_0\ X1)\wedge(( \\ & v1\_tops\_2\ X2\ X1)\wedge((v2\_cantor\_1\ X2\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))))))))\Rightarrow(u1\_pre\_topc\ X0 = u1\_pre\_topc \\ & X1)))) \end{aligned}$$