

## t44\_isomichi

(TMQcPR7ouL3zkQJrFDWmwc3p2Bx2jasPi9b)

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Let  $v2\_pre\_topc : \iota \Rightarrow o$  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  $v3\_isomichi : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\
 & \quad (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\
 & \quad (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (((v3\_isomichi \\
 & X1 X0) \wedge (v3\_isomichi X2 X0)) \Rightarrow ((k9\_subset\_1 (u1\_struct\_0 X0) (k1\_tops\_1 \\
 & X0 (k2\_pre\_topc X0 X1)) (k1\_tops\_1 X0 (k2\_pre\_topc X0 X2)) = k1\_tops\_1 \\
 & X0 (k2\_pre\_topc X0 (k9\_subset\_1 (u1\_struct\_0 X0) X1 X2))) \wedge (k4\_subset\_1 \\
 & (u1\_struct\_0 X0) (k2\_pre\_topc X0 (k1\_tops\_1 X0 X1)) (k2\_pre\_topc \\
 & X0 (k1\_tops\_1 X0 X2)) = k2\_pre\_topc X0 (k1\_tops\_1 X0 (k4\_subset\_1 \\
 & (u1\_struct\_0 X0) X1 X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\
 & \quad (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (((k1\_tops\_1 \\
 & X0 (k2\_pre\_topc X0 X1) = k1\_tops\_1 X0 (k2\_pre\_topc X0 (k1\_tops\_1 \\
 & X0 X1))) \vee (k2\_pre\_topc X0 (k1\_tops\_1 X0 X1) = k2\_pre\_topc X0 (k1\_tops\_1 \\
 & X0 (k2\_pre\_topc X0 X1)))) \Rightarrow (v3\_isomichi X1 X0))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\
 & \quad (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v3\_isomichi \\
 & X1 X0) \Rightarrow ((k1\_tops\_1 X0 (k2\_pre\_topc X0 X1) = k1\_tops\_1 X0 (k2\_pre\_topc \\
 & X0 (k1\_tops\_1 X0 X1))) \wedge (k2\_pre\_topc X0 (k1\_tops\_1 X0 X1) = k2\_pre\_topc \\
 & X0 (k1\_tops\_1 X0 (k2\_pre\_topc X0 X1))))))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1. \\ & (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2. \\ & (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(k2\_pre\_topc \\ & X0\ (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ (k4\_subset\_1\ (u1\_struct\_0\ X0) \\ & X1\ X2))) = k4\_subset\_1\ (u1\_struct\_0\ X0)\ (k2\_pre\_topc\ X0\ (k1\_tops\_1 \\ & X0\ (k2\_pre\_topc\ X0\ X1)))\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k2\_pre\_topc \\ & X0\ X2)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1. \\ & (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2. \\ & (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(k9\_subset\_1 \\ & (u1\_struct\_0\ X0)\ (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X1))) \\ & (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X2))) = k1\_tops\_1\ X0 \\ & (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k9\_subset\_1\ (u1\_struct\_0\ X0)\ X1 \\ & X2)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))\Rightarrow(m1\_subset\_1\ (k9\_subset\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0)))\Rightarrow(m1\_subset\_1\ (k4\_subset\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ X0)) \tag{7}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1. \\ & (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2. \\ & (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((v3\_isomichi \\ & X1\ X0)\wedge(v3\_isomichi\ X2\ X0))\Rightarrow((v3\_isomichi\ (k4\_subset\_1\ (u1\_struct\_0 \\ & X0)\ X1\ X2)\ X0)\wedge(v3\_isomichi\ (k9\_subset\_1\ (u1\_struct\_0\ X0)\ X1\ X2) \\ & X0)))))) \end{aligned}$$